

## ANDREA FERRARA

### CURRICULUM VITAE AND PUBLICATION LIST



Scuola Normale Superiore  
Pisa, Italy  
*Cosmology Professor*

SCUOLA  
NORMALE  
SUPERIORE



### HIGHLIGHTS

---

- Cosmology Professor at Scuola Normale Superiore, Pisa, Italy
- **Dean of the Class of Sciences, Scuola Normale Superiore, Pisa, Italy**
- Former Prorector for Education, Internationalization and Placement at Scuola Normale Superiore, Pisa, Italy
- INAF Board of Governors Member (2014 – 2015)
- Joint Professor at the Institute for the Physics and Mathematics of the Universe, Tokyo, Japan
- **European Research Council (ERC) Advanced Grant Award (2017)**
- Honorary Blaauw Professorship, Groningen University, The Netherlands
- Beatrice Tinsley Centennial Professorship, University of Texas at Austin, USA
- Severo Ochoa Prize, Instituto de Astrofísica de Canarias, Spain
- **Alexander von Humboldt Foundation, Humboldt Research Award**
- Top Italian Scientist #52
- **174** among Invited, Review and Summary talks at International Conferences
- **102** Colloquia in top scientific/academic institutes of **11** major countries
- Expert evaluator of EU, European Science Foundation and National Research Grants Programs of USA, Germany, Portugal, Holland, Israel, France, Ireland, Switzerland, Norway, Austria
- **50** among Master, PhD students and Post Docs supervised; **10** have received awards for their Thesis work
- Astronomy & Astrophysics Journal and Dataset Papers in Physics: Editorial Board Member
- **270** refereed papers in international Journals, **140** in conference proceedings (Scopus ID: 7201825167)
- From the Google Scholar database, the *H*-index is **68**; his *i10*-index is **224**
- The total number of citations to his papers is **17,417 (6798 since 2013)**
- His top five most cited papers have more than **2,731** citations.

### EDUCATION

---

**1986** National Research Council / CNR Pisa, Scientific Programming Course reg.# 5458

**1988** University of Pisa, Pisa, **Laurea in Physics**;

Thesis: *Dust Expulsion from the Disk of Spiral Galaxies*

Advisor: Prof. Federico Ferrini

**1988** University of Florence, Florence, Astronomy PhD School admission by competitive exam,

**1989** NATO Advanced School, *Chemistry in Space*, Erice, Italy

**1989** 2<sup>nd</sup> European Pre-doctoral Astrophysics School, *Late Stages of Stellar Evolution and Numerical Hydrodynamics*, Ponte de Lima, Portugal

**1990** NATO Advanced School, *Physics of Star Formation and Early Stellar Evolution*, Crete, Greece

**1992** University of Florence, Florence, **PhD in Astronomy**

Thesis: *The Hot Component of the Interstellar Medium: Hydrodynamics and Role in the Disk/Halo Interaction in Spiral Galaxies*

Advisors: Prof. Claudio Chiuderi, Prof. Giorgio Einaudi

**1992** Space Telescope Science Institute, Baltimore, USA, **PostDoc Fellow**

**1994** Harvard Center for Astrophysics, Cambridge, USA, **PostDoc Fellow**

## AFFILIATIONS

---

- 1991** INAF/Arcetri Observatory, Florence, **Research Astronomer**  
**2002** SISSA/International School for Advanced Studies, Trieste, Italy, **Associate Professor**  
**2008** Scuola Normale Superiore, Pisa, Italy, **Associate Professor**  
**2009** Institute for the Physics and Mathematics of the Universe, Tokyo, Japan, **Joint Professor**  
**2012** Scuola Normale Superiore, Pisa, Italy, **Full Professor**

## AWARDS, HONORS & PRIZES

---

- 1995** Vigoni Fellow Award  
**1998** JILA/University of Colorado, Boulder, USA, Research Associate  
**2000** Center for Computational Physics, Tsukuba, Japan, Distinguished Visiting Professor  
**2000** Ecole Normale Supérieure, Paris, France, Visiting Professor  
**2002** Observatoire Midi-Pyrenees, Toulouse, France, Visiting Professor  
**2005** Cosmology Associated Editor: Astronomy & Astrophysics Journal  
**2008** Honorary Blaauw Professorship, appointed by the Faculty of Mathematics and Natural Sciences, Groningen University at the Kapteyn Astronomical Institute, The Netherlands  
**2009** National Astronomical Observatory of Japan, Tokyo, Japan, Visiting Professor  
**2010** Habilitation (Idoneità) as Full Professor in Cosmology  
**2011** Beatrice Tinsley Centennial Professorship, appointed by the Department of Astronomy, University of Texas at Austin, USA  
**2012** Editorial Board Member: Dataset Papers in Physics, Astrophysics Section  
**2013** SKA Science and Engineering Advisory Committee [SEAC], Deputy Chair  
**2014** INAF Board of Governors, appointed by the Italian Ministry of Research (MIUR)  
**2014** Virtual Immersions in Science (VIS), SNS Outreach program, Director  
**2014** G. Giorgi Medal for Science Popularization  
**2014** Confucius Institute, Advisory Board  
**2014** Director's Delegate for Internationalization & Outreach, Scuola Normale Superiore, Pisa, Italy  
**2015** Italian SKA Science Coordination Board, Chair  
**2015** Scientific Communication Prize (for VIS program), Italian Physical Society  
**2015** SKA Inter Governmental Organization, Italian Negotiator, appointed by Italian Ministry of Research (MIUR)  
**2016** Physics PhD School at Scuola Normale Superiore, Pisa, Italy, Coordinator  
**2016** SKA Science and Engineering Advisory Committee [SEAC], Chair  
**2016** SKA Italy Coordination Committee (SKAICC), Member  
**2016** Prorector for Didactics, Internationalization and Placement, Scuola Normale Superiore, Pisa, Italy  
**2017** European Research Council (ERC) Advanced Grant Award #740120 "INTERSTELLAR"  
**2018** Severo Ochoa Prize, appointed by Instituto de Astrofísica de Canarias, La Laguna, Spain  
**2018** Honorary Member, Scuola Terza Generazione, Università La Sapienza di Roma, Italy  
**2018** Dean of the Class of Sciences, Scuola Normale Superiore, Pisa, Italy  
**2018** LOFAR2.0, International Science Advisory Panel [SAP], appointed by ILF, Member  
**2018** LOFAR2.0, Italian Science Advisory Panel [SAP], appointed by INAF, Chair  
**2018** Alexander von Humboldt Foundation, Humboldt Research Award  
The award is granted in recognition of a researcher's entire achievements to date to academics whose fundamental discoveries, new theories, or insights have had a significant impact on their own discipline and who are expected to continue producing cutting-edge achievements in the future.

## INTERNATIONAL MEETINGS: PRESENTATIONS

---

### INVITED (I), REVIEW (R) & SUMMARY (S) TALKS

- 08/1993 The ISM in Galactic Halos: Current Views, Baltimore, USA, (I)
- 06/1994 The Physics of the Interstellar and Intergalactic Medium, Marciana Marina, Italy, (I)
- 07/1994 Dust Survival in Interstellar/Intergalactic Media, Baltimore, USA, (I)
- 06/1995 The Physics of Lyman-alpha Forest Clouds, Baltimore, USA, (I)
- 07/1995 The Interplay between Massive Star and the ISM in Galaxies, Paris, France, (I)
- 03/1996 The Evolution of Low Surface Brightness and Dwarf Galaxies, Baltimore, USA, (I)
- 04/1996 The Physics of Galactic Halos, Bad Honnef, Germany, (I)
- 01/1997 Observational Tests of Cosmological Models, Aspen, USA, (I)
- 02/1997 QSO Absorption Lines and Galaxy Formation, Padova, Italy, (I)

10. 04/1997 Prospects for the AAO/UKST Galactic Plane H-alpha Survey, Sydney, Australia, (I)
11. 04/1997 IAU Coll 166, The Local Bubble and Beyond, Garching, Germany, (I)
12. 12/1997 Molecular Hydrogen in the Early Universe, Firenze, Italy, (I)
13. 12/1997 Dark Matter-Italia 1997, Trieste, Italy, (I)
14. 03/1998 Dwarf Galaxies and Cosmology, Les Arcs, France, (I)
15. 04/1998 SAIT Meeting, Supercomputing Workshop, Palermo, Italy, (I)
16. 06/1998 Star formation, Interstellar Medium and the Evolution of Galaxies, Aspen, USA, (R)
17. 06/1998 The Next Generation Space Telescope, Liege, Belgium, (R)
18. 10/1998 Dust in The Local Interstellar Medium, Bern, Switzerland, (R)
19. 11/1998 The Global ISM, MPA Garching, Germany, (R)
20. 05/1999 Italian Galaxy Formation Network Meeting, Padova, Italy, (I)
21. 06/1999 Centennial AAS Meeting, Chicago, USA, (R)
22. 06/1999 Italian Cosmology Meeting, Asiago, Italy (I)
23. 08/1999 ESO/MPA Meeting The First Stars, Garching, Germany, (I)
24. 09/1999 TMR Workshop on Galaxy Formation, Asiago, Italy, (I)
25. 11/1999 Star Formation Near and Far, ESA/Noordwijk, Holland, (I)
26. 11/1999 Cosmic Structure and Galaxy Evolution, Puebla, Mexico, (I)
27. 03/2000 Stars, Gas and Dust in Galaxies: Exploring the Links, ESO La Serena, Chile, (I)
28. 05/2000 The First Generation of Cosmic Structures, CfA/Cambridge, USA, (I)
29. 07/2000 The Physics of Galaxy Formation, Tsukuba, Japan, (S)
30. 10/2000 Modes of Star Formation in Galaxies, MPIA Heidelberg, Germany, (I)
31. 01/2001 Dwarf Galaxies and their Environment, Bad Honnef, Germany, (I)
32. 02/2001 ESA Missions: NGST, Agenzia Spaziale Italiana, Rome, (I)
33. 05/2001 Chemical Enrichment of the Intracluster and Intergalactic Medium, Vulcano, Italy, (I)
34. 05/2001 Modeling Feedback in Galaxy Formation, IGM/TMR Workshop, Durham, UK, (I)
35. 06/2001 Gaseous Matter in Galaxies and Intergalactic Space, IAP Colloquium, Paris, France, (I)
36. 06/2001 First Stars and Reionization, IGM/TMR Workshop, Firenze, Italy, (I)
37. 07/2001 Star Formation in the Galactic Context, UC Santa Cruz Workshop, US, (I)
38. 08/2001 Low Mass Galaxies and Constraints on Dark Matter, Ringberg Castle, Germany, (I)
39. 09/2001 The Physics of the Intergalactic Medium, IGM/TMR Conference, Munich, Germany, (I)
40. 10/2001 Euroconference The Evolution of Galaxies II. Ile de la Reunion, France, (I)
41. 01/2002 Galactic Winds, Bologna, Italy, (S)
42. 03/2002 Low Z at low and high z: Early Chemical Evolution, Minneapolis, USA (I)
43. 07/2002 Euroconference The Evolution of Galaxies III. Kiel, Germany, (I)
44. 07/2002 Chemical Evolution of Dwarf Galaxies, Ringberg, Germany, (I)
45. 09/2002 The Physics of the Intergalactic Medium, IGM/TMR Conference, Gargonza, Italy, (I)
46. 11/2002 VI Congresso Nazionale Cosmologia, Monte Porzio, Italy, (I)
47. 12/2002 XXI Texas Symposium on Relativistic Astrophysics, Firenze, Italy, (I)
48. 03/2003 The Topology of Reionization, Tucson, USA, (I)
49. 04/2003 XLVII Congresso SAIt, Trieste, Italy, (I)
50. 05/2003 Astrophysical Dust, Estes Park, USA, (I)
51. 05/2003 First Stars II, Penn State University, USA, (I)
52. 07/2003 Galaxy Formation and Evolution, Irsee, Germany, (I)
53. 08/2003 Star and Structure Formation: from First Light to Milky Way, Zurich, Switzerland, (I)
54. 09/2003 The Physics of the Intergalactic Medium, TMR Conference, Ile d' Oleron, France, (I)
55. 09/2003 LIX Congresso Nazionale Societa' Italiana di Fisica, Parma, Italy, (R) Lecture
56. 09/2003 Thinking, Observing and Mining the Universe, Sorrento, Italy, (I)
57. 10/2003 Modelling the Intergalactic and Intracluster Media, Vulcano, Italia, (I)
58. 10/2003 Multiwavelength Mapping of Galaxy Formation and Evolution, Venice, Italy, (I)
59. 11/2003 LOFAR Science Meeting, Leiden, Holland, (I)
60. 12/2003 Joint Seminar Italy-Japan on Cosmology, Niigata, Japan, (I)
61. 05/2004 The IMF@50, A Meeting in honor of Ed Salpeter, Spineto, Italy, (I)
62. 06/2004 Extra-planar Gas, Dwingeloo, Holland, (I)
63. 09/2004 The Physics of the Intergalactic Medium, IGM/TMR Conference, Leiden, Holland, (I)
64. 10/2004 Baryons in Dark Matter Halos, Novigrad, Croatia, (I)
65. 10/2004 New Windows on Star Formation in the Cosmos, College Park, USA, (I)
66. 03/2005 Probing Galaxies Through QSO Absorption Lines, Shanghai, China, (I)
67. 05/2005 Massive Star Birth: a Crossroads of Astrophysics, IAU Symp. 227, Acireale, Italy, (I)
68. 05/2005 Numerical Cosmology, ICTP Trieste, Italy, (I)
69. 06/2005 The Fabulous Destiny of Galaxies, Vth LAM Conference, Marseille, France, (I)

70. 06/2005 Reionizing the Universe, Groningen, Holland, (S)
71. 08/2005 Open Questions in Cosmology, Garching, Germany, (R)
72. 08/2005 The Physics of the Intergalactic Medium, TMR Conference, Klost. Seon, Germany, (I)
73. 03/2006 Sterile Neutrinos in Cosmology, Crans Montana, Switzerland, (I), [declined]
74. 03/2006 Dwarf Galaxies as Cosmological Probes, Ringberg, Germany, (I), [declined]
75. 05/2006 Massive Stars: from PopIII and GRBs to the Milky Way, STScI, USA, (I), [declined]
76. 06/2006 From Planets to Galaxies, ELTE Budapest, Hungary, (I)
77. 07/2006 First Stars, Institute for Nuclear Theory, University of Washington, Seattle, USA (I)
78. 07/2006 Star Formation from Galactic to Cosmological Scales, MPI Heidelberg, Germany (I)
79. 07/2006 Chemo-dynamics from First Stars to Local Galaxies, CRAL Lyon, France, (I)
80. 10/2006 Radiation Backgrounds from the First Stars, Galaxies, Black Holes, Maryland, USA, (I)
81. 10/2006 From Stars to Galaxies: Building the Blocks to Build the Universes, Venice, Italy, (I)
82. 12/2006 LOFAR and SKA: Status and Perspectives, INAF, Rome, Italy, (R)
83. 04/2007 Astrophysics in the LOFAR Era, Emmen, Holland, (I)
84. 05/2007 Structure formation in the Universe, Chamonix, France, (I)
85. 06/2007 Matter and Energy in the Universe, Blois, France, (I), [declined]
86. 06/2007 Dark Galaxies and Lost Baryons, IAU 244, Cardiff, UK, (I), [declined]
87. 06/2007 HI Survival through Cosmic Times, Spineto, Italy, (I)
88. 06/2007 Energetic Events in the Universe: from Physics to Cosmology, Marseille, France, (R)
89. 07/2007 First Stars III, Santa Fe, USA, (R)
90. 08/2007 Star Formation: Now and Then, KITP, Santa Barbara, USA, (R)
91. 09/2007 Next generation of computational models of baryonic physics in galaxy formation: from protostellar cores to disk galaxies, Zurich, Switzerland, (I)
92. 10/2007 From Planets to Dark Energy: the Modern Radio Universe, Manchester, UK, (R)
93. 04/2008 Marie Curie SKADS Workshop, Astronomy in the Next Decade: Synergies with SKA, Bonn, Germany, (R)
94. 05/2008 52nd National Congress of Italian Astronomical Society (SAIt), Teramo, Italy, (R)
95. 05/2008 Supernovae & GRBs in the Epoch of Reionization, Darjelling, India, (R)
96. 06/2008 LOFAR Science Workshop, Bologna, Italy, (R)
97. 06/2008 Low Metallicity Star Formation: from the First Stars to Dwarf Galaxies, IAU Symposium 255, Rapallo, Italy, (R)
98. 07/2008 Far Away: Light in the Young Universe at Redshift Beyond Three, XXIV IAP Colloquium, Paris, France, (I), [declined]
99. 07/2008 Frontiers in Computational Astrophysics: The Origin of Stars, Planets and Galaxies, Ascona, Switzerland, (I), [declined]
100. 07/2008 Cosmic Reionization, Kavli Institute Workshop, Beijing, China, (S)
101. 08/2008 Cosmology with the CMB and Large Scale Structure, TIFR/IUCAA Workshop, Pune, India, (I), [declined]
102. 09/2008 Probing the Stellar Populations of Distant Galaxies, Cefalù, Italy, (I)
103. 10/2008 The Impact of Simulations in Cosmology and Galaxy Formation, Trieste, Italy, (R)
104. 01/2009 7<sup>th</sup> Heidelberg Conf. on Dark Matter in Astro-Particle Physics, New Zealand, (R), [declined]
105. 02/2009 Particle Astrophysics and Cosmology, Snowbird, Utah, USA, (I) [declined]
106. 03/2009 The Cosmic Evolution of Helium and Hydrogen, Ringberg Castle, Germany, (R)
107. 03/2009 The Cosmic Evolution of Helium and Hydrogen, Ringberg Castle, Germany, (S)
108. 06/2009 Cosmic Dust, Niels Bohr Institute, Copenhagen, Denmark, (I)
109. 07/2009 The Lyman Alpha Universe, Institute d'Astrophysique de Paris, Paris, France, (R)
110. 09/2009 Tours Symposium on Nuclear Physics and Astrophysics VII, Kobe, Japan, (R)
111. 02/2010 The High-Redshift Universe: A Multi-Wavelength View, Aspen, USA, (S)
112. 02/2010 Cosmic Reionization, Allahabad, India (R) + (S)
113. 03/2010 The First Stars and Galaxies: Challenges for the Next Decade, Austin, USA, (R)
114. 07/2010 38th COSPAR Meeting, Probing the High Redshift Universe, Bremen, Germany, (R)
115. 09/2010 SIGRAV Meeting, Pisa, Italy, (I)
116. 11/2010 Cosmic Radiation Fields, DESY/Hamburg, Germany, (R)
117. 01/2011 NAOJ Workshop on Metal Poor Stars, Mitaka, Japan, (R)
118. 04/2011 International X-ray Observatory (IXO) Meeting, CNR Rome, Italy, (I)
119. 06/2011 The First Galaxies, Max-Planck Institute Workshop, Rindberg, Germany, (I)
120. 09/2011 Young and Bright: High Redshift Structures, AIP Potsdam, Germany, (S)
121. 11/2011 Galactic Archeology, 3rd International Subaru Conference, Shuzenji, Japan, (I)
122. 02/2012 Faint Galaxies and Faint Dwarfs, KITP Workshop, Santa Barbara, USA, (I)

123. 03/2012 Turbulence in Cosmic Structure Formation, Arizona State University, Tempe, USA, (I)
124. 04/2012 Reionization: When and How, IASF Milano, Italy, (R)
125. 05/2012 The Near Infrared Background, Austin, USA, (R)
126. 05/2012 First Stars IV, Kyoto, Japan, (S)
127. 06/2012 Metals in Tuscany Workshop, Spineto, Italy, (R)
128. 10/2012 The Low Metallicity ISM: Chemistry, Turbulence and Magnetic Fields, Goettingen, Germany, (I)
129. 01/2013 Gamma-Ray Bursts and their Host Galaxies, Sesto, Italy, (I)
130. 06/2013 The Near Infrared Background, LIBRAE/Euclid Workshop, NASA Goddard, USA, (I)
131. 06/2013 Cosmic Dawn, Max-Planck Institute Workshop, Rindberg, Germany, (I)
132. 07/2013 EWASS12, European Week of Astronomy and Space Science, Turku, Finland, (I)
133. 09/2013 Lyman-alpha as an astrophysical tool, Albanova Workshop, Stockholm, Sweden, (I)
134. 09/2013 DESY CASPAR Workshop, Hamburg, Germany, (I)
135. 06/2014 Powerful AGN and Their Host Galaxies Across Cosmic Time, Pt. Douglas, Australia (I), [declined]
136. 06/2014 Intergalactic Matters, Heidelberg, Germany (I) [declined]
137. 06/2014 The physics of first star and galaxy formation, Edinburgh, UK, (S)
138. 07/2014 EWASS13, European Week of Astronomy and Space Science, Geneva, Switzerland, (I), [declined]
139. 08/2014 ICTP Workshop, Cosmology from Baryons at High Redshift, Trieste, Italy (I)
140. 09/2014 Joint WISH + First Galaxies International Workshop, Marseille, France (I) [declined]
141. 11/2014 Biology in Space, Scuola Superiore Sant'Anna Workshop, Pisa, Italy (I)
142. 11/2014 Arcetri Extragalactic Retreat, Spineto, Italy (I)
143. 02/2015 Hubble Frontier Fields, Sesto, Italy (I)
144. 03/2015 Back at the Edge of the Universe, Sintra, Portugal (I)
145. 04/2015 South by High Redshift, Austin, USA (I)
146. 05/2015 ICTP Advanced Workshop on Cosmological Structures from Reionization to Galaxies, Trieste, Italy, (I)
147. 05/2015 SAIt LIX Congress, Catania, Italy (I)
148. 05/2015 The Near IR Background II: from Reionization to the Present Epoch, MPA Workshop, Garching, Germany (I)
149. 06/2015 Reionization: A Multi-wavelength Approach, Kruger Park, South Africa (I) [declined]
150. 06/2015 IGM@50 Is the Intergalactic Medium driving Star Formation?, Spineto, Italy (I)
151. 06/2015 First Stars, Galaxies and Black Holes: Now and Then, Groningen, Holland (R)
152. 06/2015 EWASS14, European Week of Astronomy and Space Science, Tenerife, Spain (I)
153. 07/2015 14<sup>th</sup> Marcel Grossman Meeting on General Relativity, Rome, Italy (I) [declined]
154. 09/2015 Italian Physical Society, 101<sup>st</sup> Conference, Rome, Italy (I)
155. 12/2015 28th Texas Symposium on Relativistic Astrophysics, Geneva, Switzerland [declined]
156. 10/2015 The Near Infrared Background, LIBRAE/Euclid Workshop, NASA Goddard, USA (I)
157. 12/2015 Cosmology and First Light, Lagrange Institute Conference, Paris France (I)
158. 12/2015 From L'Ile de France to the Edge of the Universe Workshop Paris, France (I)
159. 05/2016 Frontier Objects in Astrophysics and Particle Physics, Vulcano, Italy (I) [declined]
160. 03/2016 Cosmological Intensity Mapping Workshop, Stanford University, USA (I) [declined]
161. 03/2016 FLARE Workshop, LA,M Marseille, France (I) [declined]
162. 04/2016 SPICA Workshop, INAF Rome, Italy (I) [declined]
163. 04/2016 MIAPP Cosmic Reionization Workshop, Garching, Germany (I)
164. 10/2016 CTA Consortium Meeting, Bologna, Italy (I)
165. 01/2017 The Growth of Galaxies, Sesto, Italy (I)
166. 06/2017 Second Annual Intensity Mapping Workshop at JHU, Baltimore, USA (I)
167. 06/2017 EWASS16, European Week of Astronomy and Space Science, Prague, Cech Republic, (I) [declined]
168. 07/2017 Whereabouts and Physics of the Roaming Baryons in the Universe, Sesto, Italy (I) [declined]
169. 09/2017 Emission Line Galaxies with MOS: from cosmic noon to the reionization era, Cambridge, UK (I)
170. 10/2017 Theseus Mission Workshop, Naples, Italy (I)
171. 11/2017 Galaxy Evolution and Environment (GEE5), Firenze, Italy (R)
172. 04/2018 A Star Was Born, Conference in Honor of Prof. M. Dopita, Spineto, Italy (I) [declined]
173. 01/2018 The Growth of Galaxies, Sesto, Italy (I)
174. 03/2018 Tokyo Spring Cosmic Lyman Alpha Workshop, Tokyo, Japan (S)

175. 04/2018 The ISM of high-redshift galaxies, MIAPP Workshop, Munich, Germany (I)
176. 06/2018 Shedding Light on the Dark Universe with ELTs, Trieste, Italy (I) [declined]
177. 06/2018 21 cm and dark matter, CERN Workshop, Geneva, Switzerland (I) [declined]
178. 06/2018 Venice Cosmology Workshop, Venice, Italy (I)
179. 07/2018 The Flatiron Institute Workshop, New York, USA (I)
180. 07/2018 15th Marcel Grossman Meeting, Cosmology and multi-messenger astrophysics with Gamma-Ray Bursts, Rome, Italy (I) [declined]
181. 09/2018 A BAM in the Anisotropic Universe, Torino, Italy [declined]
182. 09/2018 Understanding Emission-line galaxies for the next generation of cosmological surveys, Teruel, Spain (I) [declined]
183. 01/2019 Cosmology - The Next Decade, ICTS Bangalore, India [declined]
184. 09/2018 SIGRAV Meeting, Santa Margherita, Cagliari, Italy (I)
185. 12/2018 II National Workshop on SKA, Bologna, Italy (I)

#### CONTRIBUTED TALKS

1. 07/1988 IAU Symposium N. 135, Interstellar Dust, UC Santa Clara, USA
2. 04/1989 IAU Colloquium N. 120, Structure and Dynamics of the ISM, Granada, Spain
3. 09/1989 Chemical and Dynamical Evolution of Galaxies, Marciana Marina, Italy
4. 06/1990 IAU Symposium N. 144, The Interstellar Disk--Halo Connection in Galaxies, Leiden, Holland
5. 05/1991 CTS Workshop, Evolution of Interstellar Matter and Dynamics of Galaxies, Prague, Czech Republic,
6. 06/1992 ESO/EIPC Workshop, Starburst Galaxies and their ISM, Marciana Marina, Italy
7. 10/1992 3<sup>rd</sup> Maryland Meeting, Back to The Galaxy, College Park, USA
8. 06/1993 Aspen Physics Center Workshop, The Physics of a Dynamic ISM, Aspen, USA
9. 09/1993 ISO Workshop, ESRIN-Frascati, Italy
10. 07/1994 Airborne Astronomy Symposium, NASA/Ames, USA
11. 08/1994 IAU Symp. 169, Unsolved Problems of the Milky Way, The Hague, The Netherlands
12. 09/1994 Dust, Molecules and Backgrounds, Capri, Italy
13. 06/1995 Polarimetry of the Interstellar Medium, Troy, USA
14. 08/1995 Cold Gas at High Redshift, Hoogeveen, The Netherlands
15. 11/1995 IV Congresso Nazionale Cosmologia, Frascati, Italy
16. 07/1996 Dark and Visible Matter in Galaxies, Sesto Pusteria, Italy
17. 05/1997 Normal Galaxies at High and Low Redshift, Accademia dei Lincei, Rome, Italy
18. 07/1997 Structure and Evolution of the IGM from QSO Absorption Line Systems, Paris, France
19. 09/1997 The Young Universe, Rome, Italy
20. 09/1999 H<sub>2</sub> in Space, IAP Paris
21. 07/2017 Spectral Diagnostics to Explore the Cosmic Dawn with JWST, STScI, Baltimore, USA

#### INTERNATIONAL MEETINGS: ORGANIZATION

---

##### SOC/LOC MEMBER (M) OR CHAIR (C)

- 08/1993 STScI Workshop, The ISM in Galactic Halos: Current Views, Baltimore, USA, SOC (M)
- 06/1994 Elba Workshop in honor of G. B. Field, The Physics of the Interstellar and Intergalactic Medium, Marciana Marina, Italy, SOC (C) + LOC (M)
- 08/1997 IAU JD Dwarf Galaxies: Probes for Galaxy Formation and Evolution, Kyoto, Japan, SOC (M)
- 03/1998 Dwarf Galaxies and Cosmology, Les Arcs, Moriond, France, SOC (M)
- 10/1999 Star Formation from the Small to the Large Scale, 33rd ESLAB Symp., Noordwijk, Holland, SOC (M)
- 06/2001 First Stars and Reionization, IGM/TMR Meeting, SOC (C)
- 06/2002 Early Cosmic Structures and the End of the Dark Ages, Marciana Marina, Italy, SOC (C) + LOC (C)
- 06/2002 Joint Seminar Italy-Japan on Cosmology, Firenze, Italy, SOC (C)
- 06/2002 The Physics of the Warm Intergalactic Medium, Vulcano, Italy, SOC (M)
- 05/2003 First Stars II, Penn State University, USA, SOC (M)
- 09/2004 Galaxy-IGM Interactions, Kavli Institute for Theoretical Physics, Santa Barbara, USA, Workshop Director

05/2005 Numerical Cosmology, ICTP Trieste, Italy, SOC (M)  
06/2005 Reionizing the Universe, Groningen, Holland, SOC (M)  
06/2005 Open Problems in Cosmology, MPA/ESO Garching, Germany, SOC (M)  
07/2006 Chemodynamics from First Stars to Local Galaxies, CRAL Lyon, France, SOC (M)  
08/2006 XXVI IAU General Assembly, Joint Discussion JD07, The Universe at  $z > 6$ , Prague, Czech Republic, SOC (C)  
10/2006 17th Astrophysics Conference in Maryland, College Park, Maryland, USA, SOC (M)  
06/2007 HI Survival Through Cosmic Time, Spineto, Italy, SOC (M)  
06/2008 The Cosmic Odyssey of the Elements, Aegina Island, Greece, SOC (M)  
06/2008 IAU Symposium No. 255, Low-metallicity Star Formation: from the First Stars to Dwarf Galaxies, SOC (M)  
09/2008 Star Forming Dwarf Galaxies, Kolymbari, Crete, Greece, SOC (M)  
09/2009 Highlights in Astrophysics, PhD Astrophysics School, Rabac, Croatia, SOC (M)  
09/2009 Tours Symposium on Nuclear Physics and Astrophysics VII, Kobe, Japan, SOC (M)  
12/2010 Texas 2010 Symposium, Heidelberg, Germany, SOC (M)  
05/2011 First Stars IV, Kyoto University, Japan, SOC (M)  
05/2011 GRBs as Probes, Como, Italy, SOC (M)  
09/2011 Young and Bright: High Redshift Structures, AIP Potsdam, Germany, SOC (M)  
05/2012 The Near Infrared Background, UT Austin Workshop, SOC (M)  
06/2012 The Italian Pathway to SKA, MIUR-Rome, SOC (M)  
07/2012 EWASS12, European Week of Astronomy and Space Science, Rome, Italy, SOC (C)  
08/2012 CECAM Workshop, Theoretical and Computational Astrochemistry, Pisa, Italy, SOC (C)  
07/2013 EWASS13, European Week of Astronomy and Space Science, Turku, Finland, SOC (C)  
07/2014 The First Billion Years of Galaxies and Black Holes, Sesto, Italy, SOC (C)  
09/2014 Società Italiana di Fisica, Centennial Meeting, Pisa, Italy, Cosmology Section President (C)  
05/2015 The Near IR Background II: from Reionization to the Present Epoch, MPA Workshop, Garching, Germany (M)  
06/2015 Reionization: A Multiwavelength Approach, Kruger Park, South Africa, SOC (M)  
07/2015 The Metal Enrichment of Diffuse Gas in the Universe, Sexten, Italy, SOC (M)  
01/2016 The Physics of Cosmic Reionization in the SKA Era, Sexten, Italy, SOC (C)  
04/2016 The Cold Universe, Kavli Institute for Theoretical Physics, Santa Barbara, USA, Workshop Director  
07/2016 High-z 2016, Valletta, Malta, SOC (M)  
08/2016 First Stars V, Heidelberg, Germany, SOC (M)  
11/2016 The First Pietro Baracchi Conference: Italo-Australian Radio Astronomy in the Era of the SKA, Perth, Australia, SOC (M)  
01/2017 The Dawn of Galaxies, Obergurgl, Austria, SOC (M)  
03/2017 Collaborative Conference on Nuclear Physics, Siem Reap, Cambodia, SOC (M)  
08/2017 Challenges in Galaxy Evolution: from black holes to cosmic web, Florence, Italy, SOC (M)  
10/2017 Quantum Gases, Fundamental Interactions and Cosmology, Pisa, Italy, SOC (M)  
04/2018 The ISM of high-redshift galaxies, MIAPP Workshop, Munich, Germany (C)

#### COLLOQUIA AT INTERNATIONAL INSTITUTIONS

---

1. 07/1989 International Center for Theoretical Physics, Trieste, Italy
2. 10/1989 Max Planck Institute for Astrophysics, Garching, Germany
3. 01/1990 Physics Department, University of Pisa, Pisa, Italy
4. 08/1991 Instituto de Astronomia, UNAM, Mexico
5. 01/1992 Astronomy Department, University of Florence, Florence, Italy
6. 09/1992 Tartu Observatory, Tartu, Estonia
7. 02/1993 Space Telescope Science Institute, Baltimore, USA
8. 03/1994 Harvard-Smithsonian CfA, Cambridge, USA
9. 03/1994 Osservatorio Astronomico di Trieste, Trieste, Italy
10. 04/1994 Istituto di Planetologia, CNR, Rome, Italy
11. 04/1994 Sternberg Institute, Moscow, Russia
12. 05/1994 Ioffa Institute, St. Petersburg, Russia
13. 07/1994 Space Telescope Science Institute, Baltimore, USA
14. 08/1994 Max-Planck-Institut für Radioastronomie, Bonn, Germany

15. 08/1994 Max-Planck-Institut für Astronomie, Heidelberg, Germany
16. 02/1995 JILA, University of Colorado, Boulder, USA
17. 03/1995 Dept. of Astronomy, University of Minnesota, Minneapolis, USA
18. 03/1995 University of Minnesota, Minneapolis, USA
19. 03/1995 University of Virginia, Charlottesville, USA
20. 06/1995 NASA Goddard Space Flight Center, Greenbelt, USA
21. 03/1996 University of California, Berkeley, USA
22. 03/1996 University of Virginia, Charlottesville, USA
23. 03/1996 Space Telescope Science Institute, Baltimore, USA
24. 04/1996 Osservatorio Astronomico di Roma, Monte Porzio, Italy
25. 04/1996 Max-Planck-Institut für Astronomie, Heidelberg, Germany
26. 05/1996 Physics Department, Ruhr Universitaet, Bochum, Germany
27. 05/1996 Max-Planck-Institut für Radioastronomie, Bonn, Germany
28. 06/1996 Osservatorio Astronomico di Bologna, Bologna, Italy
29. 02/1997 Dipartimento di Astronomia, Università di Padova, Italy
30. 05/1997 Dipartimento di Fisica, Università di Firenze, Italy
31. 06/1997 University of Wales, Cardiff, UK
32. 06/1997 University of Minnesota, Minneapolis, USA
33. 08/1997 SISSA, Trieste, Italy
34. 11/1997 ESO, Munich, Germany
35. 11/1997 Harvard-Smithsonian CfA, Cambridge, USA
36. 11/1997 University of Wisconsin, Madison, USA
37. 01/1998 Osservatorio Astrofisico di Arcetri, Firenze, Italy
38. 04/1998 Osservatorio Astronomico di Trieste, Trieste, Italy
39. 08/1998 Department of Physics, University of California Santa Cruz, USA
40. 08/1998 Astronomy Department, University of California Berkeley, USA
41. 08/1998 JILA, University of Colorado, Boulder, USA
42. 09/1998 Astronomy Department, University of Texas Austin, USA
43. 09/1998 NRAO Socorro, USA
44. 11/1998 Osservatorio Astronomico Brera, Milano, Italy
45. 01/1999 Dipartimento di Astronomia, Università di Padova, Italy
46. 05/1999 Astronomy Department, Yale University, New Haven, USA
47. 05/1999 Royal Observatory Edinburgh, Edinburgh, UK
48. 01/2000 Astronomy Department, UC San Diego, San Diego, USA
49. 03/2000 ESO, Munich, Germany
50. 03/2000 Observatoire de Paris, Paris, France
51. 05/2000 Space Telescope Science Institute, Baltimore, USA
52. 07/2000 Center for Computational Physics, Tsukuba, Japan
53. 08/2000 Yukawa Center for Physics, Kyoto, Japan
54. 09/2000 National Astronomical Observatory, Tokyo, Japan
55. 11/2000 Institute of Astronomy, Cambridge University, UK
56. 11/2000 Department of Astronomy, Oxford University, UK
57. 11/2000 Ecole Normale Supérieure, Paris, France
58. 11/2000 Institute de Astrophysique, Paris, France
59. 02/2001 Osservatorio Astronomico, Trieste, Italy
60. 03/2001 Osservatorio Astrofisico Arcetri, Firenze, Italy
61. 03/2001 Osservatorio Astronomico, Bologna, Italy
62. 05/2001 Osservatorio Astronomico, Roma, Italy
63. 03/2002 Observatoire Midi-Pyrenees, Toulouse, France
64. 05/2002 Osservatorio Astronomico di Brera, Milano, Italy
65. 10/2002 Sterrewacht Leiden, Leiden, The Netherlands, NOVA Lecture Series
66. 10/2002 Kapteyn Laboratory, Groningen, The Netherlands, NOVA Lecture Series
67. 10/2002 Astronomical Institute, Utrecht, The Netherlands, NOVA Lecture Series
68. 06/2003 Osservatorio Astrofisico di Arcetri, Firenze, Italy
69. 06/2003 Osservatorio Astronomico di Trieste, Trieste, Italy
70. 11/2003 Observatoire de Paris, Meudon, France
71. 06/2004 Max-Planck-Institut für Astronomie, Heidelberg, Germany
72. 05/2005 Observatoire de Geneve, Switzerland
73. 10/2005 Osservatorio Astronomico di Bologna, Bologna, Italy
74. 01/2006 Sterrenwacht Leiden, Leiden, The Netherlands

75. 01/2006 Astronomical Institute, Utrecht, The Netherlands
76. 11/2006 VIRGO/European Gravitational Observatory, Cascina, Italy
77. 12/2006 Scuola Normale Superiore, Pisa, Italy
78. 03/2007 Osservatorio Astrofisico di Arcetri, Firenze, Italy
79. 12/2007 Argelander Institute, Bonn, Germany
80. 09/2008 Institute de Astrophysique, Paris, France
81. 12/2008 Blaauw Prize Lecture, Groningen, Holland
82. 01/2009 Center for Computational Physics, Tsukuba, Japan
83. 01/2009 National Astronomical Observatory, Tokyo, Japan
84. 01/2009 Institute for Physical, Mathematical and Universe Sciences (IPMU), Tokyo, Japan
85. 05/2009 Observatoire de Geneve, Switzerland
86. 05/2009 Institute of Astronomy, Cambridge University, UK
87. 04/2011 Osservatorio Astronomico di Roma, Monte Porzio, Italy
88. 04/2012 Department of Astronomy, University of Texas, Austin, USA
89. 10/2012 Royal Observatory Edinburgh, Edinburgh, UK
90. 11/2012 Physics Department, Columbia University, New York, USA
91. 11/2012 Institute for Theory and Computation, Harvard University, Cambridge, USA
92. 01/2013 LAM, Laboratoire de Astrophysique de Marseille, Marseille, France
93. 04/2013 Osservatorio Astrofisico di Arcetri, Firenze, Italy
94. 04/2013 Princeton University, USA
95. 04/2013 Institute for Advanced Study, Princeton, USA
96. 06/2013 INAF/Rome Observatory, Rome, Italy
97. 06/2013 INAF/Capodimonte Observatory, Naples, Italy
98. 11/2013 Kavli Institute, Cambridge University, UK
99. 02/2014 Astronomy Department, University of Bologna, Italy
100. 04/2014 Physics Dept., University of Pisa, Pisa, Italy
101. 01/2015 Munich Joint Astronomy Colloquium, ESO Garching, Germany
102. 04/2015 Institute of Physics, Amsterdam University, Amsterdam, Holland
103. 06/2015 Kapteyn Laboratory, Groningen, Holland
104. 10/2016 Observatoire de Paris, Meudon, France
105. 12/2016 Gran Sasso Science Institute (GSSI), L'Aquila, Italy
106. 04/2017 Sternenwacht Hamburg, Hamburg, Germany
107. 04/2017 ETH, Zurich, Switzerland
108. 10/2017 Sternenwacht Leiden, Leiden, The Netherlands
109. 12/2017 Dublin Institute for Advanced Studies, Ireland
110. 12/2017 Queen University Belfast, Northern Ireland
111. 07/2018 Flatiron Institute, New York, USA
112. 10/2018 Instituto de Astrofisica de Canarias, Tenerife, Spain, I.
113. 10/2018 Instituto de Astrofisica de Canarias, Tenerife, Spain, II.
114. 11/2018 Albert Einstein Center, University of Bern, Bern, Switzerland
115. 11/2018 LAM, Laboratoire de Astrophysique de Marseille, Marseille, France

## POSITIONS IN SCIENCE POLICY COMMITTEES

---

### PANEL MEMBER (M) OR CHAIR (C)

- 1994 SL9-Jupiter Impact Observation Coordinating Panel, (M)
- 1998 Next Generation Space Telescope, European Science Working Team, (M)
- 1998 European Consortium for the ESA/NGST Visible Camera, (M)
- 1998 Italian Consortium for the ESA/NGST Visible Camera, Scientific Committee, (C)
- 1999 Italian Consortium for the ESA/NGST Data Management Study, (M)
- 1999 INTAS/NIS Network The Intergalactic Medium, (C)
- 1999 TMR Network The Intergalactic Medium, Italian Node (C)
- 2000 INTAS, Evaluating Panel (M)
- 2000 VLT/UVES Large Project The Cosmic Evolution of the Intergalactic Medium, (M)
- 2002 Istituto Nazionale di Astrofisica (INAF), Cosmology Working Group Panel, (M)
- 2006 ASTRONET Science Vision Working Group (SVWG), Cosmology Panel (M)
- 2007 German DFG Priority Program 1177/2 Witnesses of Cosmic History: Formation and Evolution of Galaxies, Black Holes, and their Environment, Evaluating Panel (M)
- 2008 NSF Astronomy Division, Grant Proposal Evaluation, Galaxies: Theory, Evaluating Panel (M)

2008 SAGACE Space Telescope, Science Working Group, (M)  
 2008 Dutch WSRT/LOFAR Program Committee, (M)  
 2008 ESA Euclid Dark Energy Mission, Science Team (M)  
 2012 SKA, Italian Consortium, Science Team (M)  
 2012 Portuguese FCT, Exact Sciences and Engineering, Evaluating Panel (M)  
 2012 German DFG Research Grants Program, Evaluating Panel (M)  
 2012 Science Journal, Newcomb Cleveland Prize, Evaluating Panel (M)  
 2012 OPTICON Project, University of Edinburgh, UK, Evaluating Panel (M)  
 2013 LIBRAE (Looking at Infrared Background Radiation Anisotropies with Euclid), NASA-selected project for EUCLID, Science Team (M)  
 2013 EUCLID Primordial Universe/Cosmic reionization Science Working Group (C)  
 2013 SKA Science and Engineering Advisory Committee [SEAC], Deputy Chair  
 2013 La Limonaia Scienza Viva, Board of Governors (M)  
 2013 Scuola Normale Superiore Library, Scientific Council (M)  
 2014 International Astrostatistics Association (M)  
 2014 Tuscany University Orienting (TUO) Program, Regione Toscana, SNS Delegate  
 2014 Japanese Subaru Telescope, Time Allocation Committee (M)  
 2015 “Enrico Fermi” Prize, Società Italiana di Fisica, Awarding Committee, Appointed Member (M)  
 2015 INAF SKA Science Coordination Board, Director (C)  
 2015 Hiring Committee, Professorship Search, University of Oslo, Norway (M)  
 2015 JSPS Japanese Scientific Research on Innovative Areas, Steering Committee, (M)  
 2015 EU ERC Advanced Grants, Evaluator  
 2016 AstronomiAmo, Association for the Popularization of Scientific Culture, Honorary Member  
 2016 SKA Science and Engineering Advisory Committee [SEAC], Chair  
 2017 Irish Research Council Laureate Awards Programme, Assessor  
 2017 Japanese Subaru Telescope, Time Allocation Committee (M)  
 2018 International LOFAR, Cycle11, Italian Time Allocation Committee (C)  
 2018 European Science Foundation, College of Expert Reviewers (M)

#### PHD/MASTER STUDENTS AND POSTDOC SUPERVISION

PHD (PHD), MASTER (M) OR POSTDOC (PD)

1. 1995 S. Bianchi, *Extinction and Polarization of Radiation in Spiral Galaxies*, Physics (M)
2. 1996 M. Ricotti, *Energy Dissipation in Interstellar Cloud Collisions*, Physics (M)
3. 1996 F. Miniati, *Kelvin-Helmholtz Instabilities in the Interstellar Gas*, Physics (M)
4. 1996 B. Ciardi, *Ly-alpha Absorbers Associated with Dwarf Galaxies in a CDM Cosmological Scenario*, Physics (M)
5. 1997 S. Marri, *Gravitational Magnification of High Redshift Supernovae in Hierarchical Cosmological Models*, Physics (M)
6. 1998 B. Ciardi, *Population III Objects and the Early Universe*, Astrophysics (PhD), Gratton Prize  
Mention of Honor, Marie Curie Excellence Award
7. 1999 M. Bruscoli, *CMB Anisotropies Due to Inhomogeneous Reionization*, Physics (M)
8. 1999 P. Todini *Dust Formation in the Early Universe*, Physics (M)
9. 1999 X. Hernandez, Research Area: Fate of First Stars, (PD)
10. 2000 M. Bruscoli *The Impact of Reionization on the CMB*, Astrophysics (PhD)
11. 2000 R. Schneider, Research Area: Feedbacks in Galaxy Formation, (PD), ERC Starting Grant  
Awardee
12. 2000 I. Iliev, Research Area: Feedbacks in Galaxy Formation, (PD)
13. 2000 N. Spillantini, *Supernova Explosions in the First Objects*, Physics (M)
14. 2000 A. Maselli, *Cosmological Radiative Transfer and Reionization of the Universe*, Physics (M)
15. 2000 F. Sigward, *Cosmic Explosions: Effects on Galaxy Formation*, Physics (M)
16. 2001 H. Hirashita, Research Area: Chemical Evolution of Galaxies Formation, (PD)
17. 2001 L. Zappacosta, *The Missing Baryons in the Local Universe*, Astrophysics (PhD)
18. 2001 R. Salvaterra, *Reionization Imprints on the CMB*, Astrophysics (PhD), Gratton Prize  
Honorable Mention; Tacchini Prize Award
19. 2001 E. Scannapieco, Research Area: Formation of Low-Mass Galaxies at High Redshift (PD)
20. 2002 P. Richter, Research Area: QSO Absorption Lines, (PD)
21. 2003 A. Fangano, *The Influence of Galaxy Formation on the Cosmic Environment*, Physics (M)

22. 2003 M. Valdes, *HI 21cm Line Signals from Reionization*, Physics (M)
23. 2003 S. Gallerani, *Reionization Signatures in Quasar Absorption Spectra*, Astrophysics (PhD), Puppi Prize Honorable Mention; Gratton Prize Award
24. 2003 M. Mapelli, *Relic Signatures of Cosmic Reionization*, Astrophysics (PhD), Tacchini Prize Award; Gratton Prize Award; MERAC Prize for the Best Early Career Researcher; ERC Consolidator Grant 2017
25. 2004 N. Mori, *Ly-Alpha Emission from Forming Protogalaxies*, Physics (M)
26. 2004 T. Choudhury, Research Area: QSO Absorption Lines, (PD)
27. 2004 S. Salvadori, *Metallicity distribution of Metal Poor Stars in the Galaxy*, Physics (M)
28. 2005 L. Tornatore, Research Area: Cosmological simulations, (PD)
29. 2005 S. Salvadori, *Metallicity distribution of Metal Poor Stars in the Galaxy*, Astrophysics (PhD), Gratton Prize Award, Marie Curie Award, ERC Starting Grant 2018
30. 2006 P. Dayal, *The most distant luminous sources*, Astrophysics (PhD), ERC Starting Grant Awardee, International Union of Pure and Applied Physics Young Scientist Medal 2017
31. 2006 C. Evoli, *Cosmic ray effects in the early universe*, Astrophysics (PhD)
32. 2008 F. Shu-Kitaura, Research Area: Bayesian reconstruction methods (PD)
33. 2008 Y. Xu, *HI 21cm radiation from the Dark Ages*, Astrophysics (PhD)
34. 2009 S. Baek, Research Area: HI 21 cm radiation from the Dark Ages, (PD)
35. 2010 M. Valdès, Research Area: Dark matter indirect detection, (PD)
36. 2010 A. Rorai, *Cosmic Radiative Feedbacks*, Physics (M)
37. 2011 A. Petri, *Supermassive Black Hole Formation*, Physics (M)
38. 2011 L. Vallini, *Molecular Content of Lyman Alpha Emitters*, Physics (M)
39. 2011 A. Pallottini, *Quasar Scintillation and the Warm Intergalactic Medium*, Physics (M)
40. 2011 A. Mesinger, Research Area: Cosmic Reionization and HI 21 cm, ERC Starting Grant Awardee (PD)
41. 2012 S. Gallerani, Research Area: Molecules at high redshift, (PD)
42. 2012 L. Vallini, *Molecular Content of Lyman Alpha Emitters*, Physics (PhD), Marie Curie Award
43. 2012 A. Pallottini, *Metal Enrichment of the Intergalactic Medium*, Physics (PhD)
44. 2012 S. Manti, *HI 21cm and primordial non-Gaussianities*, Physics (PhD)
45. 2012 A. Aykutalp, Research Area: Radiative feedback and galaxy formation (PD)
46. 2013 F. Pacucci, *The First Black Holes in the Cosmic Dark Ages*, Physics (PhD), Gratton Prize Award, IAU PhD Prize Award
47. 2013 B. Yue, Research Area: Cosmic Near Infrared Background (PD)
48. 2014 P. Comaschi, *Lyman Alpha Intensity Mapping*, Physics (M)
49. 2014 A. Das, *Cosmic reionization: sources and evolution*, Physics (PhD)
50. 2014 P. Comaschi, *Intensity Mapping as a Tool to Study High-z Galaxies*, Physics (PhD)
51. 2014 C. Feruglio, Research Area: FIR spectroscopy (PD)
52. 2015 M. Orofino, *Detecting the Most Distant Quasars*, Physics (M)
53. 2015 G. Ucci, *Using JWST to Investigate the Reionization Epoch*, Physics (PhD)
54. 2016 D. Decataldo, *Molecular Clumps in QSO Outflows*, Physics (M)
55. 2016 D. Decataldo, *The Physics of High Redshift Molecular Clouds*, Physics (PhD)
56. 2016 M. Kohandel, *Feedback-regulated growth of the early black hole population*, Physics (PhD)
57. 2018 C. Behrens, Research Area: Lya line radiation transfer (PD)
58. 2018 V. Allevato, Research Area: Supermassive black hole clustering (PD), Marie Curie Award
59. 2018 A. Lupi, Research Area: Black holes in high-z galaxies (PD), ERC AdG Fellow
60. 2018 S. Carniani, Research Area: ISM of high-z galaxies (PD), ERC AdG Fellow
61. 2018 L. Sommovigo, *IR Emission from High Redshift Galaxies*, Physics (M)

#### INTERNATIONAL PHD THESIS COMMITTEES

---

**Foreign expert** in most recent examination committees for the:

- 2009 PhD defense by Dr. Sunghye Baek, Université Paris VI Pierre and Marie Curie, Paris, France
- 2009 PhD defense by Dr. Smadar Naoz, Tel Aviv University, Tel Aviv, Israel
- 2010 PhD defense by Dr. Peter Laursen, University of Copenhagen, Denmark
- 2010 PhD defense by Dr. Jan-Pieter Pardekooper, Leiden University, Leiden, The Netherlands
- 2011 PhD defense by Dr. Jochen Sebastian Klar, Technische Universität Berlin, Berlin, Germany
- 2011 PhD defense by Dr. Girish Kulkarni, Harish-Chandra Research Institute, Allahabad, India
- 2011 PhD defense by Dr. Silvia Galli, Université Paris Diderot Paris VII, Paris, France

2012 PhD defense by Dr. Sudhir Raskutti, University of Melbourne, Melbourne, Australia  
2012 PhD defense by Dr. Karl Joakim Rosdahl, Université C. Bernard Lyon I, Lyon, France  
2012 PhD defense by Dr. Aycin Aykotalp, Groningen University, Groningen, The Netherlands  
2013 PhD defense by Dr. Jacopo Chevallard, Université Paris VI Pierre and Marie Curie, Paris  
2016 PhD defense by Dr. S. Recchia, Dr. I. Drachnev, GSSI L'Aquila, Italy

#### TEACHING EXPERIENCE

---

2002-2008 SISSA, Trieste, Graduate course: “Basic Cosmology”  
2009- SNS, Pisa, Undergraduate/Graduate level course: “Cosmology after Recombination”  
2011- SNS, Pisa, Undergraduate/Graduate level course: “Astrobiology”  
2014- SNS, Pisa, Undergraduate/Graduate level course: “Introduction to Physical Cosmology”  
2014- SNS, Pisa, Graduate level course: “Frontiers of Cosmology and Astrophysics”

#### EDITORIAL ACTIVITIES

---

**Cosmology Editor:** (a) Astronomy & Astrophysics Journal (2005-2018)  
(b) Dataset Papers in Physics Journal, Astrophysics Section (2010-2015)  
**Referee:** Nature, Science, The Astrophysical Journal, Monthly Notices of the Royal Astronomical Society, Astronomy & Astrophysics, New Astronomy, JCAP, PASJ, Astronomical Society of the Pacific  
**Book Editing:** Publications of the Astronomical Society of the Pacific, Cambridge University Press, Springer-Verlag, Berlin, Germany

#### EDUCATIONAL AND PUBLIC ACTIVITIES

---

##### EDUCATIONAL (E) OR PUBLIC (P)

1997 The Evolution of the Universe, Moggiona, Italy, (P)  
1998 Scuola Nazionale di Dottorato, AGN - Interstellar Medium, Riccione, Italy, (E)  
2001 Arcetri Lecture Series, High Energy, Particle Astrophysics and Cosmology, Florence, Italy, (E)  
2002 Cosmic Frontiers, Università dell'Età Libera, Firenze, Italy, (P)  
2002 Early Structures in the Universe, Società Astrofili Fiorentini, Firenze, Italy, (P)  
2002 Hubble Expansion, Settimana della Scienza, Istituto Stensen, Firenze, Italy, (P)  
2003 SIGRAV School in Contemporary Relativity and Gravitational Physics, Como, Italy, (E)  
2004 Varenna School on Background Microwave Radiation and Cosmology, Varenna, Italy, (E)  
2006 TIARA Cosmology Winter School, Taipei, Taiwan, (E)  
2006 Saas Fee School on First Light in the Universe, Les Diablerets, Switzerland, (E)  
2006 ICTP Summer School on Cosmology and Astroparticle, Trieste, Italy, (E)  
2007 Fiat Lux, PhD School, Novigrad, Croatia, (E)  
2007 ICTP School on Astrophysical Fluid Dynamics, Trieste, Italy, (E)  
2008 Supernovae & GRBs in the Epoch of Reionization, Darjelling, India, (E)  
2008 Kavli School on Cosmic Reionization, Beijing, China (E)  
2008 TIFR/IUCAA School Cosmology with the CMB, Pune, India, (E)  
2008 The First Cosmic Billion Year, Blaauw Prize Public Lecture, Groningen, Holland, (P)  
2009 The First Cosmic Billion Year, Pianeta Galileo, Firenze, Italy, (P)  
2009 National PhD Astrophysics School, Spineto, Italy, (E)  
2009 PhD Astrophysics School Highlights in Astrophysics, Rabac, Croatia, (E)  
2010 IMPRS PhD School, First Stars and Cosmic Reionization, Heidelberg, Germany, (E)  
2010 The Cosmic Dawn, Fondazione Bancaria CR Pistoia, Quarrata, Italy, (P)  
2010 L'Universo dei Sensi, Gabinetto Viessesux, Firenze, Italy, (P)  
2010 Fondazione Bancaria CR Pistoia, The Cosmic Dawn, Quarrata, Italy (P)  
2010 The Cosmic Dawn, Pianeta Galileo, Firenze, Italy, (P)  
2011 CPS 7th School of Planetary Sciences, Kobe, Japan, (E)  
2011 Cosmology and Religion, EGO-Virgo Public Conference Series. I. Pisa, Italy, (P)  
2011 Music and the Universe, EGO-Virgo Public Conference Series. II. Pisa, Italy, (P)  
2012 The Universe: Origin and Evolution, Rotary Club Lucca, Lucca, Italy, (P)  
2012 Dubbi Cosmologici, in *Dubito ergo sum*, Fondazione Niels Stensen, Firenze, Italy (P)  
2012 Comprendiamo il nostro Universo?, Villa Bottini, Lucca, Italy (P)  
2013 Le Origini del Cosmo secondo la Scienza, Comune di Capannori, Italy (P)  
2013 1° Premio Nazionale di Divulgazione Scientifica, AIL, Scientific Committee Member

2013 Varenna School on New Horizons for Observational Cosmology, Varenna, Italy, (E)  
 2013 Cosmologia, Progetto Toscana Università Orientamento (EU-TUO), Firenze, Italy (E)  
 2013 SHINE! The Researchers Night, EU-FP7 PEOPLE Program, Coordinator (P)  
 2013 Cosmologia, Corso di Orientamento SNS-Università di Trento, Rovereto, Italy (E)  
 2013 SHINE! The Researchers Night, EU-FP7 PEOPLE Program, Public Lecture, Pisa, Italy (P)  
 2013 11th Livio Gratton Prize, Public Lecture, Frascati, Italy (P)  
 2013 Associazione Italiana del Libro, Premio per la Divulgazione Scientifica, Board Member (P)  
 2014 Public Japanese TV (NHK), “Cosmic Front”, interview for the documentary (P)  
 2014 Public Italian Radio (RAI), “Caterpillar”, interview (P)  
 2014 L’universo e il suo passato, Università della Terza Età, Lucca, Italy (P)  
 2014 L’universo e il suo futuro, Università della Terza Età, Lucca, Italy (P)  
 2014 Dal vuoto a qui e dopo ancora, Museo della Scienza e Tecnica, Firenze, Italy, (P)  
 2014 Cosmologia, Corso di Orientamento SNS, San Miniato, Italy (E)  
 2014 Cosmologia, Corso di Orientamento Scuola Superiore Sant’Anna, Volterra, Italy (E)  
 2014 Cosmologia, Progetto Toscana Università Orientamento (EU-TUO), Firenze, Italy (E)  
 2014 Cosmologia, Progetto Toscana Università Orientamento (EU-TUO), Pisa, Italy (E)  
 2014 Fondazione Bancaria CR Pistoia, Corso di Orientamento, Quarrata, Italy (E)  
 2015 L’alba del cosmo, in *l’Astronomia*, Fondazione Niels Stensen, Firenze, Italy (P)  
 2015 ExoHomes, Rotary Club Lucca, Lucca, Italy, (P)  
 2015 ICTP School on Cosmology, Trieste, Italy (E)  
 2015 Cosmologia, Corso di Orientamento SNS, San Miniato, Italy (E)  
 2015 Cosmologia, Corso di Orientamento Scuola Superiore Sant’Anna, Pavia, Italy (E)  
 2016 Scusi, il suo pianeta è abitabile? Università della Terza Età, Lucca, Italy (P)  
 2016 The first black holes, RAI Radio3 Scienza, broadcasted interview (P)  
 2016 C’è qualcuno là fuori?, Università della Terza Età, Lucca, Italy (P)  
 2016 C’è qualcuno là fuori?, 1<sup>st</sup> Italian Astrochemistry Workshop, Firenze, Italy (P)  
 2016 Enrico, c’è qualcuno là fuori?, Corso di Orientamento Scuola Superiore Sant’Anna, Pisa, Italy (E)  
 2016 L’universo e il suo futuro, Star Party AstronomiAmo, Orcignano, Italy (P)  
 2016 Understanding Hawking’s radiation, RAI Radio3 Scienza, broadcasted interview (P)  
 2016 Do we understand our universe?, Corso di Orientamento SNS, San Miniato, Italy (E)  
 2016 Primordial chemistry and the first stars, KROME School, Firenze, Italy (E)  
 2016 Nello spazio, nel cosmo, Italian Ministry of Defence Workshop, Florence, Italy (P)  
 2016 Rosso come un buco nero, BRIGHT European Researchers’ Night, Pisa, Italy (P)  
 2016 Galassie all’alba del cosmo, Società Astrofili Fiorentini, Firenze, Italy, (P)  
 2017 Comprendiamo l’Universo?, Liceo Scientifico L. Dini, Pisa, Italy (E)  
 2017 Rosso come un buco nero, Università della Terza Età, Lucca, Italy (P)  
 2017 Event Horizon Telescope, RAI Radio3 Scienza, broadcasted interview (P)  
 2017 First stars and Cosmic Reionization, Spetses PhD School, Spetses, Greece (E)  
 2017 Cosmologia, Corso di Orientamento SNS, San Miniato, Italy (E)  
 2017 Cosmologia, Corso di Orientamento Scuola Superiore Sant’Anna, Pavia, Italy (E)  
 2017 PhD Cosmology School, Fuerteventura, Spain (E)  
 2017 Nello spazio, verso le origini del cosmo, BRIGHT European Researchers’ Night, Pisa, Italy (P)  
 2018 C’è qualcuno là fuori?, Istituto Ilaria Alpi, Vicopisano, Italy (E)  
 2018 Eternal inflation, RAI Radio3 Scienza, broadcasted interview (P)  
 2017 2001 Space Odissey, Punto Radio, broadcasted interview (P)  
 2018 Le Notti dei Cavalieri, Il tempo, public talk show, Pisa, Italy (P)  
 2018 Flatiron Institute Workshop/School, New York, USA (E)  
 2018 Premio Nazionale di Divulgazione Scientifica *Cosmos*, Jury Member (P)  
 2018 Cosmologia, Corso di Orientamento SNS, Napoli, Italy (E)  
 2018 Il nostro Universo, Convegno BIOGem, Ariano Irpino, Italy, (P)

## PUBLICATIONS

---

### JOURNAL IMPACT FACTORS

**Font:** ISI Web of Knowledge as of year 2018

*The Astrophysical Journal* (ApJ) IF=6.308

*Nature* IF=29.273

REFEREED

1. **Ferrara, A.**, Ferrini, F., Barsella, B., & Aiello, S. 1990, Removal of Dust from Spiral Galaxies, *A&A*, 240, 259
2. Franco, J., Ferrini, F., **Ferrara, A.**, & Barsella, B., 1991, Photolevitation of Diffuse Clouds, *ApJ*, 366, 443
3. **Ferrara, A.**, Ferrini, F., Franco, J., & Barsella, B., 1991, Evolution of Dust Grains through a Hot Gaseous Halo, *ApJ*, 381, 137
4. Einaudi G. & **Ferrara, A.**, 1991, Hydrodynamics of the Hot Component of the Galactic Halo. I. Steady--State Solutions, *ApJ*, 371, 571
5. **Ferrara, A.** & Einaudi G., 1992, Hydrodynamics of the Hot Component of the Galactic Halo. II. Radiative and convective instabilities, *ApJ*, 395, 475
6. **Ferrara, A.** 1992, The Hot Component of the Interstellar Medium: Hydrodynamics and Role in the Disk/Halo Interaction in Spiral Galaxies, Doctoral dissertation, University of Florence, 120 pp.
7. **Ferrara, A.** & Pietrini, P. 1993, Comptonization Effects as a Test of the BLR of AGNs, *ApJ*, 405, 130
8. Franco, J., **Ferrara, A.**, Tenorio-Tagle, G., Roczyska, M., & Cox, D.P. 1993, The Impact of Supernova Fragments in Multi-Supernova Remnants, *ApJ*, 407, 100
9. **Ferrara, A.** 1993, Can Galactic HI be Radiatively Supported?, *ApJ*, 407, 157
10. **Ferrara, A.** & Shchekinov, Yu. 1993, Dynamics of Conductive/ Cooling Fronts: Cloud Implosion and Thermal Solitons, *ApJ*, 417, 595
11. **Ferrara, A.** & Field, G.B. 1994, On the Distance Determination and the Ionization of the High Velocity Clouds, *ApJ*, 423, 665
12. **Ferrara, A.** & Dettmar, R. J. 1994, Radio Emitting Dust in The Free Electron Layer of Spiral Galaxies: Testing the Disk/Halo Interface, *ApJ*, 427, 155
13. Field, G. B. & **Ferrara, A.** 1995, The behavior of Fragments of Comet S-L9 in the Atmosphere of Jupiter, *ApJ*, 438, 957
14. Cervetto, C., Barsella, B. & **Ferrara, A.**, 1995, On the Charge Distribution Function of Dust Grains, *ApJ*, 443, 648
15. Corbelli, E. & **Ferrara, A.**, 1995, Instabilities in Photoionized Interstellar Gas, *ApJ*, 447, 708
16. **Ferrara, A.** & Shchekinov, Yu. 1996, Cosmological Conductive/Cooling Fronts as Lyman Alpha Forest Clouds, *ApJL*, 465, 91
17. Bianchi, S., **Ferrara, A.**, & Giovanardi, C. 1996, Monte Carlo Simulations of Dusty Spiral Galaxies: Extinction and Polarization Properties, *ApJ*, 465, 127
18. **Ferrara, A.**, Bianchi, S., Dettmar, R.-J., & Giovanardi, C. 1996, The Effect of Light Scattering by Dust in Galactic Halos on Emission Line Ratios, *ApJL*, 467, 69
19. Norman, C. A., & **Ferrara, A.** 1996, The Turbulent Interstellar Medium: Generalizing to a Scale-Dependent Phase Continuum, *ApJ*, 467, 280
20. **Ferrara, A.** & Giallongo, E. 1996, Properties of Lyman Alpha Clouds from Non-equilibrium Photoionization Models, *MNRAS*, 282, 1165
21. Bowen, D. V., Tolstoy, E., **Ferrara, A.**, Blades, J. C., & Brinks, E. 1997, The Absence of Diffuse Gas around the Dwarf Spheroidal Galaxy Leo1, *ApJ*, 478, 530
22. Ciardi, B. & **Ferrara, A.** 1997, Ly-alpha Clouds Associated with PopIII Objects in CDM Models, *ApJL*, 483, 5
23. Vietri, M., **Ferrara, A.** & Miniati, F. 1997, The Survival of Interstellar Clouds against Kelvin-Helmoltz Instabilities, *ApJ*, 483, 262
24. Ricotti, M., **Ferrara, A.** & Miniati, F. 1997, Energy Dissipation in Interstellar Cloud Collisions, *ApJ*, 485, 254
25. Cimatti, A., Bianchi, S., **Ferrara, A.**, & Giovanardi, C. 1997, On the Dust Extinction in High z Galaxies and the Case of Extremely Red Objects, *MNRAS*, 290, L43
26. Miniati, F., Jones, T. W., **Ferrara, A.** & Ryu, D. 1997, Hydrodynamics of Cloud Collisions in 2D: The Fate of Clouds in a Multi-phase Medium, *ApJ*, 491, 216
27. **Ferrara, A.** & Shchekinov, Yu. 1997, Self-similarity and Nonlinear Dynamics of Thermally Unstable Media, *Geophysical and Astrophysical Fluid Dynamics*, 84, 273

28. **Ferrara, A.** 1998, Dust in Hot Environments: Giant Dusty Galactic Halos, Lecture Notes in Physics, vol. 506, The Local Bubble and Beyond, eds. D. Breitschwerdt, M. J. Freyberg, J. Trümper, 71
29. MacLow, M.-M. & **Ferrara, A.** 1998, Superbubbles in Dwarf Galaxies: Blown Out or Blown Away?, Lecture Notes in Physics vol. 506, The Local Bubble and Beyond, eds. D. Breitschwerdt, M. J. Freyberg, J. Trümper, 559
30. Lisenfeld, U. & **Ferrara, A.** 1998, Dust-to-gas Ratio and Metal Abundance in Dwarf Galaxies, *ApJ*, 496, 145
31. **Ferrara, A.** 1998, Probing ISM Models with H-alpha Observations, *PASA*, 15, 19
32. **Ferrara, A.** 1998, The Positive Feedback of Pop III Objects on Galaxy Formation, *ApJL*, 499, 17
33. Marri, S. & **Ferrara, A.** 1998, Gravitational Magnification of Pop III Supernovae in Hierarchical Cosmological Models: NGST Perspectives, *ApJ*, 509, 43
34. Miniati, F. Ryu, D., **Ferrara, A.** & Jones, T. W. 1999, Magnetohydrodynamics of Cloud Collisions in a Multi-phase Interstellar Medium, *ApJ*, 510, 726
35. **Ferrara, A.**, Nath, B., Sethi, S. & Shchekinov, Yu. 1999, Limits on Dust and Metallicity Evolution of Ly-alpha Forest Clouds from COBE, *MNRAS*, 303, 301
36. Mac Low, M.-M. & **Ferrara, A.** 1999, Starburst-driven Mass Loss from Dwarf Galaxies: Efficiency and Metal Ejection, *ApJ*, 513, 142
37. Mannucci, F. & **Ferrara, A.** 1999, The Hubble Deep Field Reveals the Most Distant Supernova, *MNRAS*, 305, 55
38. **Ferrara, A.**, Bianchi, B., Cimatti, A. & Giovanardi, C. 1999, An Atlas of Monte Carlo Models of Dust Extinction in Galaxies for Cosmological Applications, *ApJSS*, 123, 437
39. Bianchi, S., **Ferrara, A.**, Davies, J., & Alton, P. 2000, Effects of Clumping on the Observed Properties of Dusty Galaxies, *MNRAS*, 311, 601
40. Dove, J. B., Shull, J. M. & **Ferrara, A.** 1999, The Escape of Ionizing Photons from OB Associations in Disk Galaxies: Radiation Transfer through Superbubbles, *ApJ*, 531, 846
41. **Ferrara, A.**, & Tolstoy, E. 2000, The Role of Feedback and Dark Matter on the Evolution of Dwarf Galaxies, *MNRAS*, 313, 291
42. Ciardi, B., **Ferrara, A.**, Governato, F. & Jenkins, A. 2000, Inhomogeneous Reionization Regulated by Radiative and Stellar Feedbacks, *MNRAS*, 314, 611
43. Marri, S., **Ferrara, A.** & Pozzetti, L. 2000, Gravitational Lensing of High Redshift Supernovae, *MNRAS*, 317, 265
44. Ciardi, B., **Ferrara, A.** & Abel, T. 2000, Intergalactic H<sub>2</sub> Photodissociation and the Soft UV Background Produced by Population III Objects, *ApJ*, 533, 594
45. Schneider, R., **Ferrara, A.**, Ciardi, B., Ferrari, V. & Matarrese, S. 2000, Gravitational Wave Signals from the Collapse of the First Stars, *MNRAS*, 317, 385
46. Bruscoli, M., **Ferrara, A.**, Fabbri, R. & Ciardi, B. 2000, CMB Anisotropies Resulting from Feedback-Regulated Inhomogeneous Reionization, *MNRAS*, 318, 1068
47. Gnedin, N. Y., **Ferrara, A.** & Zweibel, E. G. 2000, Generation of the Primordial Magnetic Fields during Cosmological Reionization, *ApJ*, 539, 505
48. **Ferrara, A.**, Pettini, M. & Shchekinov, Y. 2000, Mixing Metals in the Early Universe, *MNRAS*, 319, 539
49. Scannapieco, E., **Ferrara, A.** & Broadhurst, T. 2000, The Influence of Galactic Outflows on the Formation of Nearby Dwarf Galaxies, *ApJL*, 536, 11
50. Ciardi, B., **Ferrara, A.**, Marri, S. & Raimondo, G. 2001, Cosmological Reionization Around the First Stars: Monte Carlo Radiative Transfer, *MNRAS*, 324, 381
51. Todini, P. & **Ferrara, A.** 2001, Dust Formation in Primordial Type II Supernovae, *MNRAS*, 325, 726
52. Hernandez, X. & **Ferrara, A.** 2001, Cosmological Origin of the Lowest Metallicity Halo Stars, *MNRAS*, 324, 484
53. Ciardi, B., & **Ferrara, A.** 2001, Detecting PopIII Objects in the Mid-IR with NGST, *MNRAS*, 324, 648
54. Madau, P., **Ferrara, A.** & Rees, M. 2001, Early Metal Enrichment of the Intergalactic Medium by Pregalactic Outflows, *ApJ*, 555, 92
55. **Ferrara, A.** & Perna, R. 2001, Scintillation as a Probe of Intergalactic Medium, *MNRAS*, 325, 1643
56. Bromm, V., **Ferrara, A.**, Coppi, P. S. & Larson, R. B. 2001, The Fragmentation of Pre-enriched Primordial Objects, *MNRAS*, 328, 969
57. Pettini, M., Ellison, S. L., Schaye, J., Songaila, A., Steidel, C. C., & **Ferrara, A.** 2001, Metals in the Intergalactic Medium, *ApSS*, 277, 555

58. Ciardi, B., Bianchi, S. & **Ferrara, A.** 2002, Lyman Continuum Escape from Inhomogeneous ISM, MNRAS, 331, 463
59. Mori, M., **Ferrara, A.** & Madau, P. 2002, Early Metal Enrichment by Pregalactic Outflows: II. Simulations of Blow-away, ApJ, 571, 40
60. Hirashita, H., Hunt, L. & **Ferrara, A.** 2002, Dust and hydrogen molecules in the extremely metal-poor dwarf galaxy SBS 0335-052, MNRAS, 330, 19
61. Bruscoli, M., **Ferrara, A.** & Scannapieco, E., 2002, How is the Reionization Epoch Defined?, MNRAS, 330, 43
62. Iliiev, I., **Ferrara, A.** & Shapiro, P. R. 2002, On the Direct Detectability of the Cosmic Dark Ages: 21cm Emission from Minihalos, ApJL, 572, 123
63. Ricotti, M. & **Ferrara, A.** 2002, What Regulates the Kinetic Energy Budget of the ISM in Galaxies?, MNRAS, 334, 648
64. Schneider, R., Guetta, D. & **Ferrara, A.** 2002, High Energy Neutrinos from the First Stars, MNRAS, 334, 173
65. Ripamonti, E., Haardt, F., **Ferrara, A.** & Colpi M., 2002, Radiation from Collapsing Primordial Protostars, MNRAS, 334, 401
66. Scannapieco, E., **Ferrara, A.** & Madau, P. 2002, Filling Factors of Metals at High Redshift, ApJ, 574, 590
67. Schneider, R., **Ferrara, A.**, Natarayan, P. & Omukai, K. 2002, First Stars, Very Massive Black Holes and Metals, ApJ, 571, 30
68. Zappacosta, L., Mannucci, F., Maiolino, R., **Ferrara, A.**, Finoguenov, A., Nagar, N. M., Gilli, R. & Axon, D. 2002, Warm-hot Intergalactic Baryons Revealed, A&A, 2002, 394, 7
69. Hirashita, H. & **Ferrara, A.** 2002, Dust Effects on High Redshift Galaxy Formation, MNRAS, 337, 921
70. Salvaterra, R. & **Ferrara, A.** 2002, The Imprint of the Cosmic Dark Ages on the Near Infrared Background, MNRAS, 339, 973
71. Salvaterra, R. & **Ferrara, A.** 2003, Is Primordial  $^4\text{He}$  Truly from Big Bang?, MNRAS, 340, 17
72. Hirashita, H., **Ferrara, A.**, Wada, K. & Richter, P. 2003, Molecular Hydrogen in Damped Ly-alpha Systems: Spatial Distribution, MNRAS, 341, 18
73. Takeuchi, T. T., Hirashita, H., Ishii, T. T., Hunt, L. K. & **Ferrara, A.** 2003, Infrared Spectral Energy Distribution Model for Extremely Young Galaxies, MNRAS, 343, 839
74. Magliocchetti, M., Salvaterra, R. & **Ferrara, A.** 2003, First Stars Contribution to the Near Infrared Background Fluctuations, MNRAS, 342, 25
75. Schneider, R., **Ferrara, A.**, Salvaterra, R., Omukai, K. & Bromm, V. 2003, Metal Poor Halo Stars and the Nature of the First Stars, Nature, 422, 869
76. Scannapieco, E, Schneider, R. & **Ferrara, A.** 2003, The Detectability of the First Stars and their Cluster Enrichment Signatures, ApJ, 589, 35
77. Bruscoli, M., **Ferrara, A.**, Marri, S., Schneider, R. Maselli, A., Rollinde, E. & Aracil, B. 2003, The Ly-alpha Forest Around High Redshift Galaxies, MNRAS, 343, L41
78. Maselli, A., **Ferrara, A.** & Ciardi, B. 2003, CRASH: a Radiative Transfer Scheme, MNRAS, 345, 379
79. Ciardi, B., **Ferrara, A.** & White, S. M. D. 2003, Early Reionization by the First Galaxies, MNRAS, 344, L7
80. **Ferrara, A.** 2003, Pregalactic Metal Enrichment, AApSS, 284, 415
81. Miniati, F., **Ferrara, A.**, Bianchi, S. & White, S. M. 2004, Ultraviolet Background from Structure Formation, MNRAS, 348, 964
82. Venkatesan, A., Schneider, R. & **Ferrara, A.** 2004, Early Enrichment of Quasars by First Stars, MNRAS, 349, 43
83. Maselli, A., **Ferrara, A.**, Bruscoli, M., Marri, S., Schneider, R. 2004, The Proximity Effect Around High Redshift Galaxies, MNRAS, 350, 21
84. Schneider, R., **Ferrara, A.** & Salvaterra, R. 2004, Dust Formation in Very Massive Primordial Supernovae, MNRAS, 351, 1379
85. Fujita, A., MacLow, M.-M., **Ferrara, A.** & Meiksin, A. 2004, Cosmological Feedback from High-Redshift Dwarf Galaxies, MNRAS, 613, 159
86. Kurk, J. D., Cimatti, A., di Serego Alighieri, S., Vernet, J., Daddi, E., **Ferrara, A.** & Ciardi, B. 2004, A Lyman Emitter at  $z=6.5$  found with Grism Spectroscopy, A&A, 422, 13
87. Salvaterra, R., **Ferrara, A.** & Schneider, R. 2004, Induced Formation of Primordial Low-Mass Stars, NewA, 10, 113
88. Mori, M., Umemura, M. & **Ferrara, A.** 2004, The Nature of Ly $\alpha$  Blobs: Supernova-Dominated Primordial Galaxies, ApJL, 613, 97

89. Ciardi, B. & **Ferrara, A.** 2004, The First Cosmic Structures and their Effects, *Space Science Reviews*, 116, 625
90. Maiolino, R., Schneider, R., Oliva, E., Bianchi, S., **Ferrara, A.**, Pedani, M. & Roca-Sogorb, M. 2004, SN origin of dust in the distant universe, *Nature*, 431, 533
91. Sigward, F., **Ferrara, A.** & Scannapieco, E. 2005, Suppression of Dwarf Galaxy Formation by Cosmic Shocks, *MNRAS*, 358, 755
92. Hirashita, H. & **Ferrara, A.** 2005, Molecular hydrogen in damped Ly-alpha systems: clues to interstellar physics at high-redshift, *MNRAS*, 356, 1529
93. Bianchi, S. & **Ferrara, A.** 2005, IGM Metal Enrichment through Dust Sputtering, *MNRAS*, 358, 379
94. Zappacosta, L., Maiolino, R., Finoguenov, A., Mannucci, F., Gilli, R. & **Ferrara, A.** 2005, Constraining the Thermal History of the Warm-Hot Intergalactic Medium, *A&A*, 434, 801
95. Salvaterra, R., Ciardi, B., **Ferrara, A.** & Baccigalupi, C. 2005, Reionization History from Coupled CMB/21cm Line Data, *MNRAS*, 360, 1063
96. Omukai, K., Tsuribe, T., Schneider, R. & **Ferrara, A.** 2005, Fragmentation Properties of Star-forming Clouds in Low-metallicity Environments, *MNRAS*, 360, 627
97. Scannapieco, E., Madau, P., Woosley, S., Heger, A. & Ferrara, A. 2005, The Detectability of Pair-Instability Supernovae at  $z=6$ , *ApJ*, 633, 1031
98. Mapelli, M. & **Ferrara, A.** 2005, Background Radiation from Sterile Neutrino Decay, *MNRAS*, 364, 2
99. Choudhury, T. & **Ferrara, A.** 2005, Experimental Constraints on Reionization Models, *MNRAS*, 361, 577
100. Melchiorri, A., Choudhury, T., Serra, P. & **Ferrara, A.** 2005, A Very Extended Reionization Epoch?, *MNRAS*, 364, 873
101. Salvaterra, R., Haardt, F. & **Ferrara, A.** 2005, Cosmic Backgrounds from Mini-quasars, *MNRAS*, 362, 50
102. **Ferrara, A.**, Scannapieco, E. & Bergeron, J. 2005, Where are the Cosmic Missing Metals?, *ApJL*, 634, 37
103. Maselli, A. & **Ferrara, A.** 2005, Radiative Transfer Effects on the Lyman Alpha Forest, *MNRAS*, 364, 1429
104. Mapelli, M., Salvaterra, R. & **Ferrara, A.** 2005, Gamma-ray Constraints on the Infrared Background Excess, *NewA*, 11, 420
105. Salvaterra, R. & **Ferrara, A.** 2006, Where Are the Sources of the Near Infrared Background?, *MNRAS*, 367, L11
106. Ciardi, B., Scannapieco, E., Stoehr, F., **Ferrara, A.**, Iliev, I. & Shapiro, P., 2006, The effect of minihaloes on cosmic reionization, *MNRAS*, 366, 689
107. Salvaterra, R., Magliocchetti, M., **Ferrara, A.** & Schneider, R. 2006, The Infrared Glow of the First Stars, *MNRAS*, 368, L6
108. Mapelli, M., **Ferrara, A.** & Rea, N. 2006, Constraints on Galactic Intermediate Mass Black Holes, *MNRAS*, 368, 1340
109. Schneider, R., Salvaterra, R., **Ferrara, A.** & Ciardi, B. 2006, Constraints on the IMF of the First Stars, *MNRAS*, 369, 825
110. Iliev, I., Hirashita, H. & **Ferrara, A.** 2006, Fate of clumps in damped Ly-alpha systems, *MNRAS*, 368, 1885
111. Schneider, R., Omukai, K., Inoue, A. & **Ferrara, A.** 2006, Fragmentation of star-forming clouds enriched with the first dust, *MNRAS*, 369, 1437
112. Gallerani, S., Choudhury, T. R. & **Ferrara, A.** 2006, Constraining the Reionization History with Quasar Absorption Spectra, *MNRAS*, 370, 1401
113. Valdes, M., Ciardi, B., **Ferrara, A.**, Johnston-Hollitt, M. & Rottgering, H. 2006, Radio Views of Cosmic Reionization, *MNRAS*, 369, L66
114. Choudhury, T. & **Ferrara, A.** 2006, Updating reionization scenarios after recent data, *MNRAS*, 371, 55
115. Mapelli, M., **Ferrara, A.** & Pierpaoli, E. 2006, Impact of dark matter decays and annihilations on reionization, *MNRAS*, 369, 1719
116. Scannapieco, E., Kawata, D., Brook, C. B., Schneider, R. Ferrara, A & Gibson, B. K. 2006, The Spatial Distribution of the Galactic First Stars I: High-Resolution N-Body Approach, *ApJ*, 653, 285
117. **Ferrara, A.** & Ricotti, M. 2006, Winds and Infalling Gas in Lyman Break Galaxies, *MNRAS*, 373, 571

118. Iliev, I., Ciardi, B., Alvarez, M. A., **Ferrara, A.** et al. 2006, Cosmological Radiative Transfer Codes Comparison Project I: The Static Density Field Tests, *MNRAS*, 371, 1057
119. Ripamonti, E., Mapelli, M., & **Ferrara, A.** 2007, Intergalactic Medium Heating from Dark Matter, *MNRAS*, 374, 1076
120. Ripamonti, E., Mapelli, M., & **Ferrara, A.** 2007, The Impact of Dark Matter Decays and Annihilations on the Formation of the First Structures, *MNRAS*, 375, 1399
121. Maselli, A., Gallerani, S., **Ferrara, A.** & Choudhury, T. R. 2007, The Size of HII Regions Around High Redshift Quasars, *MNRAS*, 376, 34
122. Valdes, M., **Ferrara, A.**, Mapelli, M. & Ripamonti, E. 2007, Constraining dark matter through 21 cm observations, *MNRAS*, 377, 245
123. Choudhury, T. & **Ferrara, A.** 2007, Searching for the Reionization Sources, *MNRAS*, 380, L6
124. Salvadori, S., Schneider, R. & **Ferrara, A.** 2007, Cosmic Stellar Relics in the Galactic Halo, *MNRAS*, 381, 647
125. Tornatore, L., **Ferrara, A.** & Schneider, R. 2007, The first cosmic stars: hidden or disappeared ?, *MNRAS*, 382, 945
126. Fangano, A., **Ferrara, A.** & Richter, P. 2007, Absorption features of high redshift galactic winds, *MNRAS*, 381, 469
127. Schneider, R., Salvaterra, R., Choudhury, T., **Ferrara, A.**, Burigana, C. & Popa, L. 2008, Detectable Signatures of Cosmic Radiative Feedback, *MNRAS*, 384, 1525
128. Choudhury, T., **Ferrara, A.** & Gallerani, S. 2008, On the minimum mass of reionization sources, *MNRAS*, 385, 58
129. Burigana, C., Popa, L. A., Salvaterra, R., Schneider, R., Choudhury, T., & **Ferrara, A.** 2008, CMB Polarization Constraints on Radiative Feedback, *MNRAS*, 385, 404
130. Gallerani, S., **Ferrara, A.**, Fan, X. & Choudhury, T. 2008, Glimpsing through the cosmic neutral hydrogen fog, *MNRAS*, 386, 359
131. Salvadori, S., **Ferrara, A.** & Schneider, R. 2008, Life and Times of Dwarf Galaxies, *MNRAS*, 386, 348
132. Valdes, M. & **Ferrara, A.** 2008, The Energy Cascade from Warm Dark Matter Decays, *MNRAS*, 387, 8
133. Gallerani, S., Salvaterra, R., **Ferrara, A.**, & Choudhury, T. 2008, Testing Reionization with Gamma Ray Burst Absorption Spectra, *MNRAS*, 388, 84
134. Evoli, C., Salvadori, S. & **Ferrara, A.** 2008, The Puzzling Origin of the  ${}^6\text{Li}$  Plateau, *MNRAS*, 390, 14
135. Dayal, P., **Ferrara, A.**, & Gallerani, S. 2008, Signatures of Reionization on Ly-alpha Emitters, *MNRAS*, 389, 1683
136. Iocco, F., Bressan, A., Ripamonti, E., Schneider, R. **Ferrara, A.**, & Marigo, P. 2008, Dark matter annihilation effects on the first stars, *MNRAS*, 390, 1655
137. Salvadori, S. & **Ferrara, A.** 2009, Ultra faint dwarfs: probing early cosmic star formation, *MNRAS*, 395, 6
138. Maselli, A., **Ferrara, A.**, Gallerani, S. 2009, Interpreting the Transmission Windows of Distant Quasars, *MNRAS*, 395, 1925
139. Dayal, P., **Ferrara, A.**, Saro, A., Salvaterra, R. Borgani, S. & Tornatore, L., 2009, Lyman Alpha Emitters Evolution in the Reionization Epoch, *MNRAS*, 400, 2000
140. Xu, Y., **Ferrara, A.**, & Chen, X. 2009, The earliest galaxies seen in 21 cm line absorption, *MNRAS*, 410, 2025
141. Salvadori, S., **Ferrara, A.**, Schneider, R., Scannapieco, E., & Kawata, D. 2009, Mining the Galactic Halo for Very Metal-Poor Stars, *MNRAS*, 401, 5
142. Dayal, P., **Ferrara, A.** & Saro, A. 2009, The Cool Side of Lyman Alpha Emitters, *MNRAS*, 402, 1449
143. Dayal, P., Hirashita, H. & **Ferrara, A.** 2010, Detecting Lyman Alpha Emitters in the Submillimeter, *MNRAS*, 403, 620
144. Valdes, M., Evoli, C. & **Ferrara, A.** 2010, Particle Energy Cascade in the Intergalactic Medium, *MNRAS*, 404, 1569
145. Inoue, S., Salvaterra, R., Choudhury, T., **Ferrara, A.**, Ciardi, B., Schneider, R. 2010, Gamma-ray absorption at very high redshifts: probing UV intergalactic radiation fields in the cosmic reionization era, *MNRAS*, 404, 1398
146. Xu, Y., **Ferrara, A.**, Kitaura, & F. S., Chen, X. 2010, Searching for Earliest Galaxies in the 21 cm Forest, *Science China, Physics, Mechanics & Astronomy* 2010, 53
147. Ripamonti, E., Iocco, F., **Ferrara, A.**, Schneider, R., Bressan, A., & Marigo, P. 2008, First star formation with dark matter annihilation, *MNRAS*, 406, 2605

148. Salvadori, S., Dayal, P. & **Ferrara, A.** 2010, High redshift Ly-alpha emitters: clues on the Milky Way infancy, *MNRAS*, 407, 1
149. Dayal, P., Maselli, A. & **Ferrara, A.** 2010, The Visibility of Lyman Alpha Emitters during Reionization, *MNRAS*, 410, 830
150. Salvaterra, R. **Ferrara, A.** & Dayal, P. 2011, Simulating the sources of cosmic reionization, *MNRAS*, 414, 847
151. Mitra, S., Choudhury, T. & **Ferrara, A.** 2011, Reionization constraints using Principal Component Analysis, 2011, *MNRAS*, 413, 1569
152. Evoli, C., & **Ferrara, A.** 2011, Turbulence in the Intergalactic Medium, 2011, *MNRAS*, 413, 2721
153. Partl, A., Maselli, A., Ciardi, B., **Ferrara, A.** & Muller, V. 2011, Enabling parallel computing in CRASH, *MNRAS*, 414, 428
154. Gallerani, S., Shu-Kitaura, F., & **Ferrara, A.** 2011, Cosmic Density Field Reconstruction from Ly-alpha Forest Data, 2011, *MNRAS*, 413, 6
155. Dayal, P. & **Ferrara, A.** 2011, Ancient Giants: on the Farthest Galaxy at  $z=8.6$ , *MNRAS*, 417, 41
156. Ishida, E. E. O., de Souza, R. & **Ferrara, A.** 2011, Probing cosmic star formation up to  $z=9.4$  with GRBs, *MNRAS*, 418, 500
157. Mitra, S., Choudhury, T., & **Ferrara, A.** 2011, Joint QSO-CMB constraints on reionization history, *MNRAS*, 419, 1480
158. Shu-Kitaura, F., Gallerani, S. & **Ferrara, A.** 2011, Multiscale Inference of Matter Fields and Baryon Acoustic Oscillations from the Ly-alpha Forest, *MNRAS*, 420, 61
159. Salvadori, S. & **Ferrara, A.** 2012, First stars in Damped Lyman Alpha systems, *MNRAS*, 421, 298
160. Pandolfi, S. **Ferrara, A.**, Choudhury, T., Melchiorri, A. & Mitra, S. 2012, Data-constrained reionization and its effects on cosmological parameters, *Phys. Rev. D*, 8413522
161. Dayal, P. & **Ferrara, A.** 2012, Ly $\alpha$  Emitters and Ly-Break Galaxies: dichotomous twins?, *MNRAS*, 421, 2658
162. Vallini, L., Dayal, P. & **Ferrara, A.** 2012, Molecular hydrogen in Lyman Alpha Emitters, *MNRAS*, 421, 3266
163. Evoli, C., Valdes, M., Yoshida, N. & **Ferrara, A.** 2012, Energy deposition by WIMPs: a comprehensive study, *MNRAS*, 422, 420
164. Petri, A., **Ferrara, A.** & Salvaterra, R. 2012, Supermassive black holes ancestors, *MNRAS*, 422, 1690
165. Baek, S., **Ferrara, A.** & Semelin, B. 2012, Joint reionization constraints from Lyman Alpha Emitters and quasar absorption lines, *MNRAS*, 423, 774
166. Schneider, R., Omukai, K., Limongi, M., **Ferrara, A.**, Salvaterra, R., Chieffi, A. & Bianchi, S. 2011, The formation of the extremely primitive star SDSS J102915+172927 relies on dust, *MNRAS*, 423, 60
167. R. Maiolino, R., Gallerani, S., Neri, R., Cicone, C., **Ferrara, A.** Genzel, R., Lutz, D., Sturm, E., Tacconi, L. J., Walter, F. Feruglio, C., Fiore, F., & Piconcelli, E. 2012, Detection of a quasar-driven massive outflow in the early Universe, *MNRAS*, 425, 66
168. Mitra, S., Choudhury, T. & **Ferrara, A.** 2012, The escape fraction of ionizing photons from high redshift galaxies, *MNRAS*, 428, 1
169. **Ferrara, A.** 2012, Infrared light from wandering stars, *Nature*, 490, 494
170. de Souza, R., Ciardi, B., Maio, U. & **Ferrara, A.** 2013, Is the primordial IMF controlled by dark matter halos?, *MNRAS*, 428, 2109
171. Dayal, P., **Ferrara, A.** & Dunlop, J. 2013, The physics of the fundamental metallicity relation, *MNRAS*, 430, 2891
172. Valdès, M., Evoli, C., Mesinger, A., **Ferrara, A.** & Yoshida, N. 2013, The nature of dark matter from the global high redshift HI 21 cm signal, *MNRAS*, 429, 1705
173. Yue, B., **Ferrara, A.**, Salvaterra, R. & Chen, X. 2013, The contribution of high redshift galaxies to the near infrared background, *MNRAS*, 431, 383
174. Mesinger, A., **Ferrara, A.** & Spiegel, D. 2013, Signatures of X-rays in the early Universe, *MNRAS*, 431, 621
175. Baek, S. & **Ferrara, A.** 2013, Identifying Lyman Alpha Emitters powered by AGNs, *MNRAS*, 432, L6
176. **Ferrara, A.** & Loeb, A. 2013, Escape fraction of ionizing radiation from starburst galaxies at high redshifts, *MNRAS*, 431, 2826

177. de Souza, R. S., Mesinger, A., **Ferrara, A.**, Haiman, A., Perna, R. & Yoshida, N. 2013, Constraints on Warm Dark Matter models from high-redshift long Gamma-Ray Bursts, *MNRAS*, 432, 3218
178. Vallini, L., Gallerani, S., **Ferrara, A.**, Baek, S. 2013, FIR line emission from high redshift galaxies, *MNRAS*, 433, 1567
179. Yue, B., **Ferrara, A.**, Salvaterra, R., Xu, Y. & Chen, X. 2013, Infrared background signatures of the first black holes, *MNRAS*, 433, 1556; selected by *Science* as a *Editor's Choice Article*
180. Evoli, C., Pandolfi, S. & **Ferrara, A.** 2013, CMB constraints on light dark matter candidates, *MNRAS*, 433, 1736
181. **Ferrara, A.**, Haardt, F. & Salvaterra, R. 2013, Can supermassive black hole seed form in galaxy mergers?, *MNRAS*, 434, 2600
182. Pallottini, A., **Ferrara, A.** & Evoli, C. 2013, Intergalactic quasar scintillation, *MNRAS*, 434, 3293
183. Schleicker, D., Palla, F., **Ferrara, A.**, Galli, D. & Latif, M., 2013, Massive black hole factories: Supermassive and quasi-star formation in primordial halos, *A&A*, 558, A59
184. Pacucci, F., **Ferrara, A.** & D'Onghia, E. 2013, Wanderers inside Open Clusters: the Effect of Tidal Perturbations, *ApJ*, 778, L42
185. Salvadori, S., Tolstoy, E., Zaroubi, S. & **Ferrara, A.** 2014, Dwarf galaxies: reionization sources and early metal polluters?, *MNRAS*, 437, 26
186. González, J., Riechers, D. A., Decarli, R., Walter, F., Vallini, L., Neri, R., Bolatto, A. D., Carilli, C.C., Cox, P., **Ferrara, A.**, Gallerani, S., & Infante, L. 2014, Search for [CII] emission in  $z=6.5$ -11 star-forming galaxies, *ApJ*, 784, 99
187. Yue, B., **Ferrara, A.**, Salvaterra, R., Xu, Y. & Chen, X. 2014, The brief Era of direct collapse black hole formation, *MNRAS*, 440, 1263
188. Pallottini, A., **Ferrara, A.**, Gallerani, S., Salvadori, S. & d'Odorico, V. 2014, Simulating metal enrichment by the first galaxies, *MNRAS*, 440, 2498
189. Pandolfi, S., Evoli, C., **Ferrara, A.**, & Villaescusa-Navarro, F. 2014, Constraining Warm Dark Matter with high- $z$  supernova lensing, *MNRAS*, 442, 13
190. Yue, B., **Ferrara, A.**, Vanzella, E., & Salvaterra, R., 2014, Ultra-faint high redshift galaxies in the Frontier Fields, *MNRAS*, 443, 20
191. de Souza, R. S., Ishida, E. E. O., Whalen, D. J., Johnson, J. L., & **Ferrara, A.** 2014, Probing the Pop III initial mass function with primordial supernovae, *MNRAS*, 442, 1640
192. Dijkstra, M., **Ferrara, A.**, & Mesinger, A. 2014, Feedback-regulated Super Massive Black Hole Seed, *MNRAS*, 442, 2036
193. Pacucci, F., Mesinger, A., Mineo, S., & **Ferrara, A.** 2014, The Imprint of the X-ray Spectral Energy Distribution of the First Galaxies on the 21cm Signal, *MNRAS*, 443, 678
194. Hirashita, H., **Ferrara, A.**, Dayal, P. & Ouchi, M. 2014, Constraining dust formation in high-redshift young galaxies, *MNRAS*, 443, 1704
195. **Ferrara, A.**, Salvadori, S., Yue, B. & Schleicher, D. 2014, Initial mass function of intermediate mass black hole seeds, *MNRAS*, 443, 2410
196. Pallottini, A., Gallerani, S. & **Ferrara, A.** 2014, The circumgalactic medium of high redshift galaxies, *MNRAS*, 440, 2498
197. Dayal, P., **Ferrara, A.**, Dunlop, J., & Pacucci, F. 2014, Essential physics of early galaxy formation, *MNRAS*, 445, 2545
198. Gallerani, S., **Ferrara, A.**, Neri, R. & Maiolino, R. 2014, First CO(17--16) emission line detection in a  $z>6$  quasar, *MNRAS*, 445, 2848, selected by *Science* as a *Editor's Choice Article*, Oct 31, 2014
199. Evoli, C., Mesinger, A. & **Ferrara, A.** 2014, Unveiling the nature of Dark Matter with cosmological HI 21cm power-spectrum, *JCAP*, 11, 24
200. Mesinger, A., Aykotalp, A., Vanzella, E., Pentericci, L., **Ferrara, A.** & Dijkstra, M. 2015, Can the intergalactic medium cause a rapid drop in Lyman alpha emission at  $z>6$ ?, *MNRAS*, 446, 566
201. Cicone, C., Maiolino, R., Gallerani, S., Neri, R., **Ferrara, A.**, Sturm, E., Fiore, F., Piconcelli, & Feruglio, C., 2015, Very extended cold gas, star formation and outflows in the halo of a bright QSO at  $z > 6$ , *A&A*, 574, 14
202. Campana, S., Salvaterra, R., **Ferrara, A.**, Pallottini, A., 2015, Missing cosmic metals revealed by X-ray absorption towards distant sources, *A&A*, 575, 43
203. Pacucci, F., **Ferrara, A.** 2015, Simulating intermediate mass black hole growth, *MNRAS*, 448, 104
204. Pacucci, F., **Ferrara, A.** 2015, Gravitational waves from direct collapse black holes formation, *MNRAS*, 449, 1076

205. Yue, B., **Ferrara, A.**, Pallottini, A., Gallerani, S., Vallini, L. 2015, Intensity mapping of CII emission from early galaxies, MNRAS, 450, 3829
206. Pandey, K. L., Roy Choudhury, T., Sethi, S. K. & **Ferrara, A.** 2015, Reionization constraints on primordial magnetic fields, MNRAS, 451, 1692
207. Maiolino, R., Carniani, S., Fontana, A., Vallini, L., Pentericci, L., **Ferrara, A.** et al. 2015, The assembly of "normal" galaxies at  $z \sim 7$  probed by ALMA, MNRAS, 452, 94 selected by *Science* as a *Editor's Choice* Article
208. Pacucci, F., Volonteri, M., **Ferrara, A.** 2015, The Growth Efficiency of High-Redshift Black Holes, MNRAS, 452, 1922
209. Pallottini, A., Gallerani, S., **Ferrara, A.**, Yue, B., Vallini, Maiolino, R., Feruglio, C. 2015, Mapping metals at high redshift with far-infrared lines, MNRAS, 453, 1898
210. Pallottini, A., **Ferrara, A.**, Pacucci, F., Gallerani, S., Salvadori, S., Schneider, R., Schaerer, D., Sobral, D., Matthee, J. 2015, The Brightest Lyman Alpha Emitter: Pop III or Black Hole? , MNRAS, 453, 2465, selected by *Nature* as a *News and Views* Article
211. Carniani S., Maiolino, R., De Zotti, G., Negrello, M., Marconi, A., Botwhell, M., Capak, P., Carilli, C., Castellano, M., Cristiani, S., **Ferrara, A.** et al. 2015, Cosmic Infrared Background resolved by ALMA, A&A, 584, 78
212. Vallini, L., Gallerani, S., **Ferrara, A.**, Pallottini, A., Yue, B. 2015, On the [CII]-SFR relation in high redshift galaxies, ApJ, 813, 36
213. Mitra, S., Choudhury, T. & **Ferrara, A.** 2015, Cosmic reionization after Planck, MNRAS, 454, 76
214. Pacucci, F., **Ferrara, A.**, Volonteri, M., Douspis, M. 2015, Shining in the Dark: the Spectral Evolution of the First Black Holes, MNRAS, 454, 3771
215. Comaschi, P., **Ferrara, A.** 2016, Probing high-redshift galaxies with Ly $\alpha$  intensity mapping, MNRAS, 455, 725
216. Schleicher, D., Bovino, S., Latif, M., **Ferrara, A.**, Grassi, T. 2016, The chemical evolution of self-gravitating disks, A&A, 585, 11
217. Manti, S., Gallerani, S., **Ferrara, A.**, Feruglio, C., Graziani, L., Bernardi, G. 2016, Radio recombination lines from obscured quasars with the SKA, MNRAS, 456, 98
218. Castellano, M., Dayal, P., Pentericci, L., Fontana, A., Hutter, A., Brammer, A., Merlin, E., Grazian, A., Pilo, A., Amorin, R., Cristiani, S., Dickinson, M., **Ferrara, A.**, Gallerani, S., Giallongo, E., Giavalisco, M., Guaita, L., Koekemoer, A., Maiolino, R., Paris, D., Santini, P., Vallini, P., Vanzella, E., Wagg, J. 2016, First observational support for overlapping reionized bubbles generated by a galaxy overdensity, ApJL, 823, 40
219. Yue, B. **Ferrara, A.**, Helgason, K. 2016, Detecting high- $z$  galaxies in the Near Infrared Background, MNRAS, 458, 2008
220. Pacucci, F., **Ferrara, A.**, Grazian, A., Fiore, F., Giallongo, E. 2016, First Identification of Direct Collapse Black Hole Candidates in the Early Universe in CANDELS/GOODS-S, MNRAS, 458, 4008
221. Castellano, M., Yue, B., **Ferrara, A.** et al. 2016, Constraints on photoionization feedback from number counts of ultra-faint high-redshift galaxies in the Frontier Fields, ApJ, 823, 40
222. Hunt, L. K., Dayal, P., Magrini, L., **Ferrara, A.** 2016, Coevolution of metallicity and star formation in galaxies to  $z \cong 3.7$ . I. A fundamental plane, MNRAS, 463, 2002
223. Comaschi, P., Yue, B., **Ferrara, A.** 2016, Observational challenges in Ly-alpha intensity mapping, MNRAS, 463, 3193
224. Hunt, L. K., Dayal, P., Magrini, L., **Ferrara, A.** 2016, Coevolution of metallicity and star formation in galaxies to  $z \cong 3.7$ . II. Theoretical model, MNRAS, 463, 2020
225. **Ferrara, A.**, Viti, S., Ceccarelli, C. 2016, The problematic growth of dust in high redshift galaxies, MNRAS, 463, 112
226. Latif, M., **Ferrara, A.** 2016, Formation of supermassive black hole seeds, PASA, 33, 51
227. Yue, B., **Ferrara, A.**, Xu, Y. 2016, On the faint-end of the high- $z$  galaxy luminosity function, MNRAS, 463, 1968
228. **Ferrara, A.** & Scannapieco, E. 2016, On the Formation of Molecular Clumps in QSO Outflows, ApJ, 933, 46
229. Comaschi, P., **Ferrara, A.** 2016, Empowering line intensity mapping to study early galaxies, MNRAS, 463, 3078
230. Ucci, G., **Ferrara, A.**, Gallerani, S., Pallottini, A., 2017, Inferring physical properties of galaxies from their emission line spectra, MNRAS, 465, 2540
231. **Ferrara, A.** 2016, Exploring the universe with the Square Kilometer Array, Il Nuovo Saggiatore, 32, 5

232. Pallottini, A., **Ferrara, A.**, Gallerani, S., Vallini, L., Maiolino, R., Salvadori, S., 2017, Zooming on the internal structure of  $z=6$  galaxies, *MNRAS*, 465, 2540
233. Manti, S., Gallerani, S., **Ferrara, A.**, Feruglio, C. 2017, Quasar UV luminosity function evolution up to  $z = 8$ , *MNRAS*, 466, 1160
234. Bradac, M., **Ferrara, A.**, et al. 2017, ALMA observations of a  $z=7$  galaxy behind RXJ1347.1-1145, *ApJ*, 836, 2
235. Pacucci, F., Natarajan, P., **Ferrara, A.** et al. 2017, Feedback limits to maximum seed masses of black holes, *ApJ*, 835, 36
236. Gallerani, S., Zappacosta, L., Orofino, M. C., Piconcelli, E., Vignali, C., **Ferrara, A.**, et al. 2017, X-ray spectroscopy of the  $z = 6.4$  quasar SDSS J1148+5251, *MNRAS*, 467, 3590
237. Pacucci, F., Pallottini, A., **Ferrara, A.**, Gallerani, S. 2017, The nature of the Lyman Alpha Emitter CR7: a persisting puzzle, *MNRAS*, 468, 77
238. Natarajan, P., Pacucci, F., **Ferrara, A.**, Agarwal, B., Ricarte, A., Zackrisson, E., Capelluti, N. 2017, Unveiling the first black holes with JWST: multi-wavelength spectral predictions, *ApJ*, 838, 117
239. Yue, B., **Ferrara, A.**, Pacucci, F., Omukai, K. 2017, Triggering the formation of direct collapse black holes by their congeners, *MNRAS*, 838, 111
240. Leite, N., Evoli, C., D'Angelo, M., Ciardi, B. Sigl, G., **Ferrara, A.** 2017, Do cosmic rays heat the early intergalactic medium?, *MNRAS*, 469, 416
241. **Ferrara, A.**, Hirashita, H., Ouchi, M., Fujimoto, S. 2017, The infrared-dark dust content of high redshift galaxies, *MNRAS*, 471, 5018
242. Carniani, S., Maiolino, R., Pallottini, A., Vallini, L., Pentericci, L., **Ferrara, A.** et al. 2017, Extended ionized and clumpy gas in a normal galaxy at  $z=7.1$  revealed by ALMA, *MNRAS*, 605, 42
243. Vallini, L., **Ferrara, A.**, Pallottini, A., Gallerani, S. 2017, Molecular cloud photoevaporation and far-infrared line, *MNRAS*, 467, 1300
244. Spinoglio, L., **Ferrara, A.** et al. 2017, Galaxy Evolution Studies with the SPace IR Telescope for Cosmology and Astrophysics (SPICA): The Power of IR SpectroscopyPASA, 34, 57
245. Das, A., Mesinger, A., Pallottini, A., **Ferrara, A.**, Wise, J. 2017, High mass X-ray binaries and the cosmic 21 cm signal: impact of host galaxy absorption, *MNRAS*, 469, 1166
246. Pallottini, A., **Ferrara, A.**, Bovino, S., Gallerani, S., Vallini, L., Maiolino, R., Salvadori, S., 2017, The impact of chemistry on the structure of high redshift galaxies, *MNRAS*, 471, 4476
247. Carniani, S., Marconi, A., Maiolino, R., Feruglio, C., Brusa, M., Cresci, G., Cano-Díaz, M., Cicone, C., Balmaverde, B., Fiore, F., **Ferrara, A.** et al., 2017, AGN feedback on molecular gas reservoirs in quasars at  $z\sim 2.4$ , *A&A*, 605, 42
248. Jones, G., Willott, C., Carilli, C., **Ferrara, A.**, Wang, R., Wagg, J. 2017, WMH5: a forming galaxy at  $z=6$  as seen by ALMA, *ApJ*, 845, 175
249. Decataldo, D., **Ferrara, A.**, Pallottini, A., Gallerani, S., Vallini, L. 2017, Molecular clumps photoevaporation in ionized regions, *MNRAS*, 471, 4476
250. Vallini, L., Pallottini, A., **Ferrara, A.**, Gallerani, S., Sobacchi, E., Behrens C. 2017, CO line emission from galaxies in the Epoch of Reionization, *MNRAS*, 473, 271
251. Gallerani, S., Pallottini, A., Feruglio, C., Ferrara, A., Maiolino, R., Vallini, L., Riechers, D. 2017, Evidence for outflows in  $z \sim 6$  galaxies with ALMA, *MNRAS*, 473, 1909
252. Carilli, C., Murphy, E., **Ferrara, A.**, Dayal, P. 2017, Galaxies in the dark ages, *ApJ*, 848, 49
253. Feruglio, C., **Ferrara, A.**, Bischetti, M., Fiore, F. et al. 2017, On the discovery of fast molecular gas in the UFO/BAL quasar APM08279+5255 at  $z=3.912$ , *A&A*, 608, 30
254. Matthee, J., Sobral, D., Boome, F., Rottgering, H., Schaerer, D., Griard, M., Pallottini, A., Vallini, L., **Ferrara, A.**, Darvish, B, Mobasher, B, 2017, ALMA reveals metals yet no dust within multiple components in CR7, *MNRAS*, 851, 145
255. Kaneda, H., **Ferrara, A.** et al. 2017, Unbiased Large Spectroscopic Surveys of Galaxies Selected by SPICA Using Dust Bands, PASA, 34, 59
256. Mitra, S., Choudhury, T., **Ferrara, A.** 2018, Cosmic reionization after Planck II: contribution from quasars, *MNRAS*, 473, 1416
257. Barai, P., Gallerani, S., **Ferrara, A.** et al. 2018, Quasar outflows at  $z>6$ : the impact on the host galaxies, *MNRAS*, 473, 4003
258. Behrens, C., Pallottini, A., **Ferrara, A.**, Gallerani, S., Vallini, L. 2018, Dusty galaxies in the Epoch of Reionization: simulations, *MNRAS*, 477, 552
259. Ma, Q., Helgason, K. Ciardi, B., Komatsu, E., **Ferrara, A.** 2018, Measuring patchy reionization with  $kSZ^2$ - 21c, correlations, *MNRAS*, 576, 4025

260. Ucci, G, **Ferrara, A.**, Gallerani, S., Pallottini, A., 2018, GAME: GALaxy Machine learning for Emission lines, *MNRAS*, 477, 1484
261. Carniani, S., Maiolino, R., Amorin, R., Pentericci, L., Pallottini, A., **Ferrara, A.**, et al. 2018, Kiloparsec-scale gaseous clumps and star formation at  $z=5-7$ , *MNRAS*, 478, 1170
262. Orofino, M., **Ferrara, A.**, Gallerani, S. 2018, Growth problems of stellar black holes in early galaxies, *MNRAS*, 478, 1170
263. Kashlinsky, A., Arendt, R. G., Atrio-Barandela, F., Cappelluti, N., **Ferrara, A.**, Hasinger, G. 2018, Looking at cosmic near-infrared background radiation anisotropies, *Rev. Mod. Phys.* 90, 025006
264. Castellano, M., Pentericci, L., Vanzella, E., Marchi, F. Fontana, A., Dayal, P., **Ferrara, A.** et al. 2018, Spectroscopic confirmation of a reionized galaxy overdensity at  $z=7$ , *ApJ*, in press
265. Amati, L. **Ferrara, A.** et al. 2018, The THESEUS space mission concept: science case, design and expected performances, *AdSpR*, 62, 191
266. D'Odorico, V., Feruglio, C., **Ferrara, A.** et al. 2018, Witnessing galaxy assembly at the edge of the reionization epoch, *ApJL*, in press
267. Feruglio, C., Fiore, F., Carniani, S., D'Odorico, V., Luminari, A., Barai, P., Bischetti, M., Bongiorno, A., Cristiani, S., **Ferrara, A.** et al. 2018, On the  $z\sim 6$  QSO SDSS J231038.88+185519.7, *A&A*, in press
268. Padovani, M., Galli, D., Ivlev, A. V. Caselli, P. **Ferrara, A.** 2018, Production of atomic hydrogen by cosmic rays in dark clouds, *A&A*, in press
269. Egami, E., ..., **Ferrara, A.** et al. 2018, Probing the high-redshift universe with SPICA: toward the epoch of reionization and beyond, *PASA*, in press
270. Dayal, P., **Ferrara, A.** 2018, Early galaxy formation and its large-scale effects, *Physics Reports*, in press
271. Yue, B., Castellano, M., **Ferrara, A.** et al. 2017, On the faint-end of the galaxy luminosity function in the Epoch of Reionization: updated constraints from the HST Frontier Fields, *ApJ*, in press
272. Sobral, D., Matthee, J., Brammer, G., **Ferrara, A.** et al. 2018, On the nature and physical conditions of the luminous Ly $\alpha$  emitter CR7 and its rest-frame UV components, *MNRAS*, in press
273. Ucci, G, **Ferrara, A.**, Gallerani, S., Pallottini, A., et al. 2018, The interstellar medium of dwarf galaxies: new insights from Machine Learning analysis of emission line spectra, *MNRAS*, in press

#### SUBMITTED

1. Fujimoto, S., Ouchi, M., **Ferrara, A.**, Pallottini, A., Ivison, R. J., Behrens, C., Gallerani, S. 2019, Early star-forming galaxies are embedded in cold carbon halos, *Nature*, in press
2. Behrens, C., Pallottini, A., **Ferrara, A.**, Gallerani, S., Vallini, L. 2019, Ly $\alpha$  emission from galaxies in the Epoch of Reionization, *MNRAS*, in press

#### CONFERENCE PROCEEDINGS

1. Barsella, B., Ferrini, F. & **Ferrara, A.** 1988, Dust Grains in Galactic Halos, in *Evolution of Galaxies*, IAU Tenth European Regional Meeting in Astronomy, ed. J. Palous, Prague, 337
2. Barsella, B., Ferrini, F., **Ferrara, A.**, & Aiello, S. 1988, Grain Material and Galactic Shape Dependence of Dust Expulsion, in *Dust in the Universe*, eds. M. E. Bailey & D. A. Williams, (Cambridge: Univ. Press), 559
3. **Ferrara, A.**, Barsella, B., Ferrini, F., Greenberg, J. M. & Aiello, S. 1988, Dust Grains in galactic halos, in *Interstellar Dust*, eds. L. Allamandola & J.K.W.T. Thielens, S.Clara, 339
4. **Ferrara, A.**, Franco, J., Barsella, B. & Ferrini, F. 1989, Cycling of Dust Grains Through the Galactic Halo, in *IAU Coll. 120, Structure and Dynamics of the Interstellar Medium*, eds. G. Tenorio-Tagle & M. Moles, (Berlin: Springer-Verlag), 454
5. **Ferrara, A.** 1989, Halo Enrichment of Heavy Elements by Dust Expulsion, in *Chemistry in Space*, eds. J. M. Greenberg & V. Pirronello, (Reidel: Dordrecht), 451

6. **Ferrara, A.** & Einaudi, G. 1989, Thermal and Dynamical Properties of Hot Galactic Flows, in Chemical and Dynamical Evolution of Galaxies, eds. F. Ferrini, J. Franco & F. Matteucci, (Giardini: Pisa), 545
7. **Ferrara, A.** & Einaudi, G., 1990, The Role of Thermal Instabilities in the Hydrodynamics of the Galactic Halo, in IAU Symp. 144, The Interstellar Disk--Halo Connection in Galaxies, ed. H. Bloemen, 87
8. Franco, J. & **Ferrara, A.**, 1992, Dynamical Evolution of Dust Grains: Dusty Flows in Galaxies, in CTS Workshop n.1, Evolution of Interstellar Matter and Dynamics of Galaxies, ed. J. Palous, (Cambridge: Univ. Press), 136
9. **Ferrara, A.** & Einaudi, G., 1992, Galactic Fountains and Thermal Instabilities, in CTS Workshop n.1, Evolution of Interstellar Matter and Dynamics of Galaxies, ed. J. Palous, (Cambridge: Univ. Press), 84
10. Pietrini, P. & **Ferrara, A.** 1992, Testing the Hot Phase of AGNs Broad Line Region, in ESO/EIPC Workshop Starbursts Galaxies and Their Interstellar Medium, eds. J. Franco & F. Ferrini, (Cambridge: Univ. Press), 286
11. **Ferrara, A.**, Duchini, A. P. & Franco, J. 1992, Dusty Flows in Starburst Galaxies, in ESO/EIPC Workshop Starbursts Galaxies and Their Interstellar Medium, eds. J. Franco & F. Ferrini, (Cambridge: Univ. Press), 279
12. **Ferrara, A.** 1993, The Radiative Support of Galactic HI, in 3rd Annual Maryland Meeting, Back to The Galaxy, eds. S. S. Holt & F. Verter (NASA), 540
13. **Ferrara, A.** 1994, Turbulence Decay in the ISM, in AAS, 183rd Meeting, Washington D.C., 11406
14. **Ferrara, A.** & Dettmar, R. 1994, Radio Emission from Spinning Grains, in Airborne Astronomy Symposium, NASA/Ames, eds. J. Davidsen & M. Haas, 93
15. **Ferrara, A.** & Corbelli, E. 1994, Acoustic and Thermoreactive Instabilities in a Photoionized Multiphase Medium in The Physics of Interstellar and Intergalactic Medium, Marciana Marina, eds. A. Ferrara, C. Heiles, C.F. McKee & P. Shapiro, 346
16. **Ferrara, A.** 1994, Why is the HI Scale Height Constant with Galactocentric Radius ? in Unsolved Problems of the Milky Way, IAU Symp. 169, ed. L. Blitz, (Kluwer: Dordrecht), 479
17. Richichi, A., Tozzi, G.P., **Ferrara, A.** & Calamai, G. 1995, Fast IR Photometry of the Impact of Comet Shoemaker- Levy/9 with Jupiter in European SL-9/Jupiter Workshop, ESO Munchen, ed. R. West, 225
18. Dettmar, R.-J. & **Ferrara, A.** 1995, Box and Peanut Bulges in Late Type Spirals, in 17<sup>th</sup> Texas Symposium, ed. H. Bohringer, MPE Reports, 121
19. Bianchi, S., **Ferrara, A.**, & Giovanardi, C. 1995, Extinction and Polarization in Spiral Galaxy Models in Polarimetry of the Interstellar Medium, ed. W. Roberge, (Kluwer: Dordrecht), 587
20. Dettmar, R.-J. & **Ferrara, A.** 1995, NIR Imaging of the Box/Peanut Bulge in NGC 4302, in IAU 171, New Light on Galaxy Evolution, eds. R. Bender & R. Davies, (Kluwer: Dordrecht), 225
21. **Ferrara, A.** 1997, The Quest for Extragalactic Dust, in The Physics of Galactic Halos, 156<sup>th</sup> WE-Heraeus-Seminar, eds. H. Lesch et al., (Verlag: Berlin), 189
22. Lisenfeld, U. & **Ferrara, A.** 1997, Dust to Gas Ratio and Metal Abundances in Dwarf Galaxies, Moriond, ed. T. X. Thuan, 89
23. **Ferrara, A.** 1997, Structure and Evolution of the Intergalactic Medium from QSO Absorption Line Systems, Paris, ed. P. Petitjean, 81
24. **Ferrara, A.** & Marri, S. 1998, The Young Universe, ASP Series Vol. 146, eds. D'Odorico et al., 263
25. Mac Low, M. M. & **Ferrara, A.** 1998, Starbursts in Dwarf Galaxies: Blown-out or Blown-away ?, in The Magellanic Cloud and Other Dwarf Galaxies, eds. T. Richtler & J. M. Braun, (Aachen: Shaker Verlag), 177
26. Ciardi, B. & **Ferrara, A.**, 1998, Pop III Objects and their Influence Spheres, in Molecular Hydrogen in the Universe, Memorie S.A.It. vol. 69, eds. E. Corbelli et al., 439
27. **Ferrara, A.**, & Ciardi, B. 1998, Pop III objects and their Relationship with Dwarf Galaxies, in Dwarf Galaxies and Cosmology, XIII Moriond Meeting, eds. T. X. Thuan et al., 429
28. **Ferrara, A.** & Marri, S. 1998, Detecting Pop III Objects with NGST, in The Next Generation Space Telescope: Science Drivers and Technological Challenges, ESA-SP249, 103
29. Ciardi, B. & **Ferrara, A.** 1998, The Impact of Population III Objects on the Early Universe, in The Birth of Galaxies, eds. B. Guiderdoni et al. (Gioi: Vietnam), p. 395
30. **Ferrara, A.**, Ciardi, B. & Todini, P. 1999, Is Reionization Regulated by H<sub>2</sub> in the Early Universe?, in H<sub>2</sub> in Space, IAP Paris, ed. F. Combes, 44
31. Ciardi, B. & **Ferrara, A.**, 2000, The impact of PopIII Objects on the Early Universe, in The Birth of Galaxies, Xth Rencontres de Blois, eds. Charlot et al., 592

32. **Ferrara, A.** & Ciardi, B. 2000, The impact of PopIII Stars on Reionization, in *The First Stars*, MPA/ESO Workshop, eds. A. Weiss et al., 213
33. **Ferrara, A.**, Ciardi, B. Marri, S. & Todini, P. 2000, Feedback Processes in the Early Universe, in *Star Formation from the Small to the Large Scale*, 33rd ESLAB Symp., eds. F. Favata et al., 5
34. **Ferrara, A.** 2000, Feedback, Metal and Dust Production in the Early Universe, in *Cosmic Evolution and Galaxy Formation: Structure, Interactions and Feedback*, ASP Series Vol. 300, eds. J. Franco et al., 58
35. **Ferrara, A.** 2000, The Physics of the Multiphase Interstellar Medium, ESO Conference, Stars, Gas and Dust in Galaxies: Exploring the Links, La Serena, Chile, ASP Series, eds. D. Alloin et al., 49
36. **Ferrara, A.** 2000, Physical Processes at Cosmic Dawn, in *The Physics of Galaxy Formation*, Tsukuba, Japan, ASP Series, eds. H. Susa, & M. Umemura, 301
37. **Ferrara, A.** 2000, Feedback-Regulated Inhomogeneous Reionization, in *The Physics of Galaxy Formation*, Tsukuba, Japan, ASP Series, eds. H. Susa, & M. Umemura, 91
38. **Ferrara, A.** 2000, Stellar Feedback, Dark Matter and Dwarfs Evolution, in *Modes of Star Formation*, Heidelberg, Germany, ASP Series, eds. E. Grebel, 25
39. **Ferrara, A.** 2000, Stellar Feedback, Dark Matter and Dwarfs Evolution, in *Dwarf Galaxies and their Environment*, Bad Honnef, Germany, ed. K. de Boer, 35
40. **Ferrara, A.** 2001, Metal Enrichment of the Intergalactic Medium, in *Chemical Enrichment of Intracluster and Intergalactic Medium*, Vulcano, Italy, ed. F. Matteucci, 44
41. **Ferrara, A.** 2001, Metal Enrichment of the Intergalactic Medium, in *Gaseous Matter in Galaxies and Intergalactic Space*, XVIIth IAP Colloquium, Paris, France, ed. R. Ferlet, 46
42. Haardt, F., Ripamonti, E., Colpi, M. & **Ferrara, A.** 2001, The Collapse of Primordial Stars: the Importance of Radiation, in *The Evolution of Galaxies. II. Basic Building Blocks*, Ile de la Reunion, France, ed. G. Stazynska et al., 90
43. **Ferrara, A.** 2003, First Stars and their Initial Mass Function, XXI Texas Symposium on Relativistic Astrophysics, eds. R. Maiolino & M. Salvati, 321
44. **Ferrara, A.** 2003, The End of the Dark Ages, Sait2003, Trieste, Italy, eds. S. Zaggia et al., 451
45. **Ferrara, A.** 2003, Dust Formation in Supernova Ejecta: Cosmological Implications, in *Astrophysical Dust*, Estes Park, USA, ed. A. Witt et al., 231
46. Zappacosta, L., Maiolino, R., Mannucci, F., Gilli, R., Finoguenov, A. & **Ferrara, A.** 2004, Detections of Warm-Hot Intergalactic Medium, Modelling the Intergalactic and Intracluster Media, Vulcano Island (Messina), Italy, ed. V. Antonuccio, 78
47. **Ferrara, A.** & Salvaterra, R. 2004, Feedback Processes at Cosmic Dawn, Review for SIGRAV Graduate School in Contemporary Relativity and Gravitational Physics, Como, Italy, ed. M. Colpi, 221
48. Choudhury, T. & **Ferrara, A.** 2006, Physics of Cosmic Reionization, (R) (RSP), ed. R. Fabbri, arXiv:astro-ph/0603149
49. **Ferrara, A.** 2007, Cosmological Feedbacks from the First Stars, Lecture Series at the Saas Fee School on First Light in the Universe, Les Diablerets, Switzerland, ed. D. Schaerer, 175
50. **Ferrara, A.** 2012, First Star IV Conference Summary, eds. K. Omukai et al, in press

#### RECENT FUNDING ID

---

2018 Munich Institute for Astro- and Particle Physics, The ISM Medium of High Redshift Galaxies  
 2017 European Research Council (ERC) Advanced Grant, Proposal #740120 INTERSTELLAR  
 2017 INAF-PRIN Square Kilometer Array  
 2017 EU Maria Skłodowska Curie Action Grant #749348, CACHEM  
 2017 Scuola Normale Superiore, Internal Grant #709  
 2016 Kavli Institute, University of Santa Barbara, The Cold Universe  
 2016 Centro Enrico Fermi, Triennial Project, CORTES  
 2016 Virtual Immersions in Science, MIUR Legge 6  
 2015 Scuola Normale Superiore, Internal Grant #300142  
 2014 Scuola Normale Superiore, Internal Grant #2347  
 2013 Virtual Immersions in Science (MIUR), SNS Outreach Program  
 2012 Research Projects of National Interest (PRIN-MIUR), project # 2010LY5N2T, ‘Chemical and dynamical evolution of the Milky Way and Local Group galaxies’  
 2012 High Performance Computing Grant, CINECA Class-C  
 2012 European Southern Observatory, Contract F031/12  
 2012 Scuola Normale Superiore, Internal Grant #2145

2011 HPC Europa, High Performance Computing Grant  
2011 Centre Européen de Calcul Atomique et Moléculaire Grant, ‘Theoretical and Computational Astrochemistry’  
2011 Italian PRIN-INAF project #5228 “The First Cosmic Billion Years”  
2009 HPC Europa, High Performance Computing Grant  
2008 EU Marie Curie Grant, project #221783 MCMCLYMAN  
Yearly - Editorial Grant ESO

#### LANGUAGES

---

*Fluent:* Italian, English, Spanish

*Basic:* French

*Programming:* APL, BASIC, C, FORTRAN, PYTHON

#### PERSONAL DATA

---

Born: Udine, March 29, 1961

Fiscal Code: FRRNDR61C29L483Y

#### **Scuola Normale Superiore**

Piazza dei Cavalieri, 7

56126 Pisa, Italy

phone: +39 050 509067

fax: +39 050 563513

mobile: +39 329 0715067

e-mail: [andrea.ferrara@sns.it](mailto:andrea.ferrara@sns.it)

www: <http://www.sns.it/en/didattica/scienze/menunews/personale/docenti/ferraraandrea/>

skype: ferrara.sns

twitter: ferrara\_sns