

Colloqui della Classe di Scienze

Anno Accademico 2019/2020

Sala Azzurra | Palazzo della Carovana
Scuola Normale Superiore
Piazza dei Cavalieri, 7 - PISA

27 NOVEMBRE 2019
ore 15.00

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A glimpse into the energy conundrum

ABSTRACT:

We use energy at virtually every instant of the day with a profusion never experienced by previous generations. This entails considerable impact on the environment, the climate, the economy and, more generally, on international relations. The seminar will provide a broad view of the global energy scenario, emphasizing the formidable progress of some renewable technologies in the last decade. The energy transition to sustainable technologies will be a long and difficult process, which requires profound technological, economic and social change, including (i) a rational use of the limited mineral resources of the Earth, which are needed to manufacture converters and accumulators of renewable flows, (ii) technologies with high energy return on energy invested, (iii) reduction of primary consumption in affluent countries and (iv) a lessening of inequalities in the access to energy among different regions of the world. The biggest challenge to face is the immense scale of the energy transition to undertake, in a planet populated by over 9 billion people in 2050 and subject to increasing climate and resource constraints. Finally, attempts to set up a large-scale project at the European level on solar-to-chemicals conversion will be briefly outlined.

Info: Area Ricerca e Didattica - classi@sns.it



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