

Annex A – Positions with specific topic

Ph.D. Course	PHYSICS
Scholarship type	MISSIONE 4 – ISTRUZIONE E RICERCA Investimento 4.1 - Dottorati di ricerca PNRR (art. 8, DM 118/2023)
N.	1
CUP	E53C23001230001
Title	Novel foundations and architectures in quantum physics
Brief description of the research project	Physics has always been at the center of scientific research at the SNS, as have issues aimed at bringing about a significant development of knowledge, also applied, in the areas of interest of the PNRR. The research topic connected to this scholarship has a strong scientific-technological vocation, and ensures the promotion of interdisciplinarity, membership of international networks and the inter-sectoral nature referred to in the PNRR. The research will have to be based on a combination of theoretical investigations, numerical simulations based on supercalculation and experimental data, representing a competitive and innovative study in particular in the field of physics and quantum science and technology, with the aim of stimulating new ideas, opportunities and future industrial innovation in this field.
SSD	FIS/01, FIS/02, FIS/03, FIS/05, FIS/07
Period of study and research to be carried out abroad	It is mandatory to carry out periods of study and research in companies or research centers from a minimum of six (6) months to a maximum of twelve (12) months, even if not continuous, and periods of study and research abroad. The destinations for each student will be decided by supervisors and the Ph.D course board.