



PhD in FISICA / PHYSICS - 38th cycle

PARTENARIATO PNRR Research Field: ULTRAFAST PROCESSES IN SUSTAINABLE INNOVATIVE FUELS FOR MOBILITY

Monthly net income of PhDscholarship (max 36 months)

€ 1200.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field	<p>The aim of this PhD project, in the framework of the Italian PNRR project CN Mobilità sostenibile, is the study of the ultrafast processes such as charge formation or charge recombination in different organic, inorganic and hybrid new sustainable materials.</p> <p>PNRR CN_00000023 Sustainable Mobility Center (Centro Nazionale per la Mobilità Sostenibile – CNMS)</p> <p>CUP: B43C22000440001</p> <p>Decreto di concessione n.1033 del 17/06/2022</p>
Methods and techniques that will be developed and used to carry out the research	<p>The scholar will use ultrafast laser sources to perform pump probe experiments with high (<20fs) time resolution to reveal the dynamics of the physical processes that take place after light absorption and energy extraction.</p>
Educational objectives	<p>The scholar will receive multidisciplinary training in topics including laser physics, nonlinear optics, and molecular spectroscopy.</p>
Job opportunities	<p>The training in cutting edge ultrafast spectroscopy and data analysis will provide the student with excellent job opportunities in high-tech industries. In addition, he/she will be well positioned for an academic career.</p>
Composition of the research group	<p>1 Full Professors</p>



	2 Associated Professors 0 Assistant Professors 2 PhD Students
Name of the research directors	Tersilla Virgili, Franco Camargo, Giulio Cerullo

Contacts
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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	600.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>Educational activities: Educational activities (purchase of study books and material, funding for participation to courses, summer schools, workshops and conferences): financial aid per PhD student per 3 years: max 4.892,40 euros per student.</p> <p>Teaching assistantship: There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.</p> <p>Computer availability: individual use Desk availability: shared use</p>