



## PhD in FISICA / PHYSICS - 37th cycle

### THEMATIC Research Field: MAGNETIC PROPERTIES OF INTERFACES BETWEEN MOLECULAR LAYERS AND ANTIFERROMAGNETIC MATERIALS

#### Monthly net income of PhDscholarship (max 36 months)

**€ 1180.0**

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

#### Context of the research activity

<b>Motivation and objectives of the research in this field</b>	This research is funded by the H2020 FETOPEN-2018-2020 project "SINFONIA", whose main goal is to exploit the hybridized states created at organic/inorganic magnetic interfaces to couple an external optical stimulus to the propagation of magnetic perturbations in the inorganic layer. In this context, it is of fundamental importance to be able to characterize the magnetic properties of the interfaces at the nanometer scale. Projects website: <a href="https://www.sinfonia-fet.eu/">https://www.sinfonia-fet.eu/</a>
<b>Methods and techniques that will be developed and used to carry out the research</b>	The candidate will actively take part in the development of state-of-the-art magneto-optics instrumentation. He/she will coordinate his/her activity with other local laboratories devoted to the preparation of the samples and to their physical and chemical characterization. He will be involved in experiments at external facilities (mainly synchrotron radiation facilities), especially with regards to magnetic characterizations.
<b>Educational objectives</b>	The candidate will learn to be responsible for a specific research activity, with interdisciplinary character, to organize and analyze the experimental activities and to discuss and present the results among colleagues and in the scientific community.
<b>Job opportunities</b>	These PhD activities open the way to both academic and industrial careers. The high level of scientific content naturally leads to a strong background and at the same time the know-how on nanotechnology and design finds



	many industrial applications.
<b>Composition of the research group</b>	2 Full Professors 2 Associated Professors 1 Assistant Professors 2 PhD Students
<b>Name of the research directors</b>	Alberto Brambilla

<b>Contacts</b>	
alberto.brambilla@polimi.it	
https://www.fisi.polimi.it/en/research/research_structures/laboratories/stm;	
https://www.fisi.polimi.it/en/research/research_structures/laboratories/snom.	

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

<b>Scholarship Increase for a period abroad</b>	
<b>Amount monthly</b>	566.36 €
<b>By number of months</b>	6

<b>Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information</b>
<p><b>Educational activities per year :</b></p> <p>1<sup>st</sup> year: 0</p> <p>2<sup>nd</sup> year: 1534 euros per student</p> <p>3<sup>rd</sup> year: 1534 euros per student</p> <p>or 1022 euros per student for each year.</p> <p><b>Teaching assistantship:</b></p> <p>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><b>Computer and Desk availability:</b> shared use.</p>