



# PhD in FISICA / PHYSICS - 37th cycle

## THEMATIC Research Field: SPIN-COMPUTING

### 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

<b>Motivation and objectives of the research in this field</b>	The applications of Spintronics to spin-computing are still at their infancy. This PhD program deals with the investigation of wave computing and neuromorphic computing strategies based on spin-waves and spin-charge interconversion.
<b>Methods and techniques that will be developed and used to carry out the research</b>	The candidate will work in a team made of a full professor, an assistant professor and a few PhD students, with the aim of providing solutions for edge artificial intelligence on microsystems. Experimental activities will be carried out in Polifab ( <a href="http://www.polifab.polimi.it">www.polifab.polimi.it</a> ).
<b>Educational objectives</b>	Development of interdisciplinary knowledge at the boundary between physics, microfabrication technology, computer science and electronics.
<b>Job opportunities</b>	This activity will be carried out in a group involved in the Joint Research Center of STM and Politecnico di Milano (STEAM), in strong connection with the world of MEMS development and production. This PhD will represent a solid basis for careers both in academia and in semiconductor industry.
<b>Composition of the research group</b>	1 Full Professors 2 Associated Professors 2 Assistant Professors 4 PhD Students
<b>Name of the research directors</b>	Riccardo Bertacco

### 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	564.01 €
By number of months	6

**Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information**

**Educational activities per year :**

1<sup>st</sup> year: 0  
 2<sup>nd</sup> year: 1534 euros per student  
 3<sup>rd</sup> year: 1534 euros per student.  
 or 1022 euros per student for each year.

**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.

**Computer and Desk availability:** *individual use*