

Politecnico di Milano

PhD in

Environmental and Infrastructure Engineering (IAI)

Research Area n. 03: Environmental and Hydraulic Engineering and Geomatics (Geomatics Sector)

Research Title: Satellite geodesy for monitoring Earth mass distribution and variations

Scholarships and Financial support	
Monthly net income of PhD scholarship (max 36 months)	€ 1.200,00 (In case of a change of the welfare rates during the three-year period, the amount could be slightly modified)
Number of scholarships	1
Beginning of PhD	1/5/2017
Deadline for application	<i>March 13, 2017</i>
Context of the research activity	
Motivations and objectives of the research in this field Please write no more than 10 lines and if possible include links to dedicated web-pages for further information	In the field of satellite geodesy, the aim is to study the concept of an innovative satellite gravity mission based on advanced sensors aiming at monitoring with high resolution the mass distribution and its variations which occur on and below the Earth surface. The goal of such a mission is to further the knowledge of the static and dynamic gravity field, opening new applications in Earth exploration, cryosphere monitoring, hydrology and oceanography.

<p>Methods and techniques that will be developed and used to carry out the research Please write no more than 5 lines;</p>	<p>The research will be developed both at the analytical level and numerical levels (data simulations, statistical data analysis techniques, software development). A strict cooperation will be carried on with other research groups involved in this research topic.</p>
<p>Educational objectives Please write no more than 5 lines and if possible include links to dedicated web-pages for further information</p>	<p>The main objective is to form scientists or high level technicians capable of dealing with complex problems in the field of physical geodesy, with a particular focus on the satellite/space applications.</p>
<p>Job opportunities Please use no more than 5 lines to identify opportunities of professional career and related experiences of recent PhD graduates in this research field</p>	<p>Job opportunities can be found as scientists in universities and research centers of geodesy, and high level technicians for the advanced industry of space technology or generally for small-medium companies requiring knowledge in statistical data analysis.</p>
<p>Composition of the research group Please Indicate links to web-pages of the research group</p>	<p>3 Full Professors 5 Associate Professors 3 Assistant Professors 11 PhD students 7 contracted researchers</p> <p>http://www.dica.polimi.it/en/ricerca/geodesia/</p>
<p>Names of the research directors</p>	<p>Federica Migliaccio Mirko Reguzzoni</p>
<p>E-mail address, phone number and web-page</p>	<p>federica.migliaccio@polimi.it Phone +39 02 2399 6507 Fax +39 02 2399 6530 http://www.dica.polimi.it/index.php?id=169&tx_wfqbe_pi1[id]=108042</p> <p>mirko.reguzzoni@polimi.it Phone +39 02 2399 6509 Fax +39 02 2399 6530 http://www.dica.polimi.it/index.php?id=169&tx_wfqbe_pi1[id]=138236</p>
<p>List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research</p>	<p>1. ASI (Italian Space Agency) 2. ESA (European Space Agency) 3. Thales Alenia Space 4. University of Trieste 5. University of Firenze 6. AtomSensors s.r.l.</p>
<p>Additional support</p>	
<p><u>Housing:</u> financial aid per PhD student per year (gross amount)</p>	
<p><u>Funding for educational activities</u> (purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences): funding per PhD student per year</p>	<p>1st year: 900,00 euros 2nd year: 900,00 euros 3rd year: 900,00 euros</p>

<u>Teaching assistantship:</u> availability of funding in recognition of support to teaching activities by the PhD student	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.
<u>Computer availability:</u>	1 st year: <i>individual use</i> 2 nd year: <i>individual use</i> 3 rd year: <i>individual use</i>
<u>Desk availability:</u>	1 st year: <i>individual use</i> 2 nd year: <i>individual use</i> 3 rd year: <i>individual use</i>