

**Call for application for research scholarships  
for post-graduate international candidates**

**RESEARCH PROJECT N. 43**

<b>Title</b>
Reliability analysis in rockfall mitigation structures
<b>Scientific responsible (name, surname, role)</b>
Valerio DE BIAGI, Researcher (RTD A) ( <a href="mailto:valerio.debiagi@polito.it">valerio.debiagi@polito.it</a> )
<b>Short description of the research activity (max 250 words)</b>
The research activity would focus on the safety assessment and on the design of rockfall risk mitigation structures, focusing the attention on earth embankments. A probabilistic framework accounting for the falling volume variability will be developed and implemented in the existing design practice through a reliability function. The candidate will develop a stochastic procedure with the double purpose of assessing the uncertainties in the reliability function and setting appropriate reduction coefficients, as carried out in modern design codes (for other kind of actions).
<b>Specific requirements (experiences, skills)</b>
The candidate would preferably hold a master degree in Civil or Environmental Engineering, with strong skills on reliability analysis and geotechnics. A basic knowledge of Matlab is desirable.
<b>Website of the research group (if any)</b>
<b>Keywords (min 3, max 6)</b>
rockfall; risk mitigation; rock nets; earth embankments; design; probabilistic approaches
<b>Research Area (max 1)</b>
Structural, Geotechnical and Building Engineering