The scope of the conference is to strengthen the already existing knowledge of the relationship between 3-manifold theory, topology, probability theory, and analytic group theory, while expanding it in directly related areas of research that recently came to the forefront of the worldwide mathematical scenery.

In addition to research talks there will be an instructional component in the form of three minicourses with the focus in *Towers of covers and applications.*

- **Invariant Random Subgroups in rank one and higher rank Lie groups**, Tsachik Gelander (Hebrew University and Weizmann Institute)
- **Coverings and expanders**, Emmanuel Kowalski (ETHZ)
- **$L^2$-invariants and growth of homology in towers of finite coverings**, Roman Sauer (Karlsruhe Institute of Technology)

Additional information can be found at the webpage of the conference  
*http://www.ventotene2015.net*

Doctoral students and young researchers are particularly encouraged to apply by sending to the email address *ventotene2015@gmail.com*

- a CV,
- a short statement describing the relevance of the participation to this conference for their research, as well as
- a letter of recommendation.

The deadline for the application is **April 15th, 2015.**