

Intensive Research Period  
May – July 2011



# KNOTS & APPLICATIONS

Workshop  
Geometric Topology of Knots  
25-26 May, 2011

Mathematical Research Centre (CRM) “Ennio De Giorgi”  
Scuola Normale Superiore – Pisa, Italy

URL: <http://www.crm.sns.it/hpp/events/event.html?id=146>

As other branches of 3-dimensional topology, the theory of knots and links was deeply revolutionized by the geometric approach first developed by Thurston. This workshop will focus on the geometry of knots, and particularly on aspects of hyperbolic geometry and the knot invariants associated with it, most notably the volume. Strong emphasis will be put on the relationships between these geometric invariants and the more classical ones, such as the crossing number. The algorithmic and computational methods now available to construct hyperbolic structures, and to compute invariants, will also be considered as central topics.

## Invited Speakers

Michel Boileau, U. Toulouse, F  
Cameron Gordon, U. Texas, Austin, USA  
Marc Lackenby, U. Oxford, UK  
Feng Luo, Rutgers U., USA  
Walter Neumann\*, Columbia U., USA  
Jessica Purcell, Brigham Young U., USA

\* to be confirmed

Participants willing to contribute with a talk are encouraged to submit title and abstract to Carlo Petronio at [petronio@dm.unipi.it](mailto:petronio@dm.unipi.it). A selection will be made by **January 2011**. The local expenses of speakers will be covered by the organization. Young participants can apply for financial support, even if they are not submitting a talk.

**Program:** Invited lectures (45 mins), oral contributions (30 mins).

**Registration:** Required via the website above.

**Financial support:** Prospective participants should seek grant/university support towards travel expenses. Limited funding towards participant local expenses may be provided by CRM and INdAM upon application. Participants seeking support should send their CV and list of publications to [petronio@dm.unipi.it](mailto:petronio@dm.unipi.it), before **13 March, 2011**.

