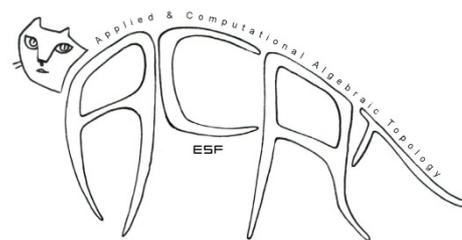**ESF-PESC Networking Programme**

Applied and Computational Algebraic Topology
Newsletter 7[1]   April 2014

The ACAT programme of the European Science Foundation ESF has run since July 2011 and will terminate in July 2015. Please find below an overview of recent and future activities related to ACAT.

ACAT workshops and conferences in 2014 and 2015

Conference with ACAT support in January 2014:
Structures mathématiques du calcul, Lyon (FR), Jan 6 – Feb 7, 2014, http://smc2014.univ-lyon1.fr/doku.php, 5 weeks of workshop/winter school, including in particular a week on Directed Algebraic Topology and Concurrency http://smc2014.univ-lyon1.fr/doku.php?id=week3

ACAT support has been granted to the upcoming conference
Applied Algebraic Topology, CIEM Castro Urdiales (ES), June 30 – July 5, 2014, http://homepages.warwick.ac.uk/~maskas/ including an advanced lecture course http://homepages.warwick.ac.uk/~maskas/courses.html

Support for further workshops, conferences and summer schools will be discussed and decided during the next steering committee meeting. If you are interested in applying, please contact raussen@math.aau.dk and/or apply through https://www2.esf.org/WD170AWP/WD170Awp.exe/CONNECT/RNP_SMeetings_Application?id=1049 no later than June 20, 2014.

We expect to receive applications for
- Workshop Distributed Computing Through Combinatorial Topology in connection with PODC'14, July 15, Paris (FR)
- de Brun workshop on Computational homology, Galway (IE), December 2014
- Conference/workshop on Directed Algebraic Topology and Concurrency, Aalborg (DK), January 2015
- XXI Oporto Meeting on Geometry, Topology and Physics with a focus on Applications of Topology, Oporto (PT), February 2015
- Special session on Applied Algebraic Topology within the AMS-EMS-SMP meeting, Lisbon (PT), June 2015
- Conference DyToComp http://ww2.ii.uj.edu.pl/DyToComp2015/ , Bedlewo (PL), June 2015
- Summer School on Computational Topology and Topological Data Analysis, Ljubljana (SLO), July 2015
- Conference Applied and Computational Algebraic Topology, Vienna (A), July 2015

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[1] Previous Newsletters can be found at http://acat.lix.polytechnique.fr/

Steering Committee

The next meeting of the ACAT steering committee will take place at the CIEM http://www.ciem.unican.es/ in Castro Urdiales (ES) on June 30, 2014.

Visit and exchange grants

So far, ACAT has sponsored two exchange grants (1-4 months) and 30 visit grants (ranging from a few days up to two weeks), for details and reports, have a look at http://www.esf.org/coordinating-research/research-networking-programmes/physical-and-engineering-sciences-pen/current-research-networking-programmes/applied-and-computational-algebraic-topology-acat/scientific-activities.html . For future grants, we welcome and encourage applications at http://www.esf.org/activities/research-networking-programmes/physical-and-engineering-sciences-pesc/current-research-networking-programmes/applied-and-computational-algebraic-topology-acat/grants.html

ACAT web site:

Please contribute with ideas and suggestions to the ACAT web site http://acat.lix.polytechnique.fr/

Hausdorff Institute

Unfortunately, the application for a trimester on Applied and Computational Algebraic Topology at the Hausdorff Institute for Mathematics in Bonn in the spring of 2016 (cf Newsletter 6) was not successful. Nevertheless, we were encouraged to consider a new application for the academic year 2016/17. This and alternative options will be discussed at the ACAT steering committee meeting in June.

Journal of Applied and Computational Topology

Plans for a journal dedicated to applied and computational topology have been around for a while. A group of seven people (four from the US and three from the European ACAT community) has taken the initiative to investigate possible options, drafted the "Aims and Scopes" for such a journal and contacted several publishers. It seems that the best offer comes from the American Mathematical Society, but negotiations are still on-going. The journal would be mainly an electronic journal, still offering a print-on-demand option. There would be a small group of managing editors and a larger editorial board. All papers would be fully refereed. Hopefully, the new journal will start appearing already in 2015.
If you have an interesting paper in the pipeline, please consider submitting it to JACT. Survey papers and papers describing applications will be very welcome.

Serbian ACAT community

One of the effects of the conference on Applied Algebraic Topology in Bedlewo last year was establishing a link between ACAT and the "Topology and Combinatorics" group in Belgrade, Serbia, led by Rade Zivaljevic and Sinisa Vrecica. This group cooperates regionally with the Slovenian ACAT node in Slovenia. Welcome!

Matt Kahle wins prestigious CAREER grant from the NSF

Matt Kahle (Ohio State Univ.) has received a prestigious CAREER grant from NSF for his proposal entitled *"Random spaces and groups."* Congratulations to Matt!

Calendar of Events

- September 1, 2013 – June 30, 2014: IMA Thematic year on scientific and engineering applications of algebraic topology. Twin Cities MN, USA: http://www.ima.umn.edu/2013-2014/
- January 20 – May 23, 2014: Algebraic Topology. MSRI, Berkeley CA, USA: http://www.msri.org/web/msri/scientific/programs/show/-/event/Pm8964
- April 22 – July 11, 2014: Semantics of proofs and certified mathematics. IHP Paris, France: http://ihp2014.pps.univ-paris-diderot.fr/
- May 26 – 30, 2014: Algebraic Topology: Methods, Computation & Science (ATMCS 6). Vancouver, Canada: http://atmcs6.appliedtopology.org/
- June 30 – July 5, 2014: Applied Algebraic Topology, CIEM Castro Urdiales, Spain: http://homepages.warwick.ac.uk/~maskas/
- July 29 – August 8, 2014: Workshop on Algebraic Topology and its Applications, Dalian, China: http://cggi.dlut.edu.cn/icm2014/?page_id=387
- June 15 – 20, 2015: DyToComp, Bedlewo, Poland: http://ww2.ii.uj.edu.pl/DyToComp2015/