

Dr. Dimoklis Gkountaroulis

(Dimos Goundaroulis)

Education

Mar 09-Jan 14 **PhD** in **Mathematics**, School of Applied Mathematical & Physical Sci-Jul 07-Apr 08 ence, Department of Mathematics, National Technical University of Athens.

Oct 04-Sep 06 **MSc in Mathematical Modeling**, *Department of Mathematics*, University of the Aegean.

Oct 98- Sep 04 BSc in Mathematics, Department of Mathematics, University of the Aegean.

Phd Thesis

Title Framization of the Temperley-Lieb algebra and related link invariants.

Supervisor Professor Sofia Lambropoulou.

Advisory Prof. J. Juyumaya, Instituto de Matemáticas, Universidad de Valparaíso.

Committee Prof. A. Kontogeorgis, Department of Mathematics, University of Athens.

Defence date 27 January 2014.

Current Positions

Feb 14-Aug 15 **Post-Doctoral Researcher**, *Department of Mathematics*, National Technical University of Athens.

Other Positions

Oct 14-Mar 15 Scientific Associate. Academic Open Courses, National Technical University of Athens

May 08-Feb 09 Soldier. Military Service (mandatory).

Scholarships

2009-2012 PhD Scholarship. National Technical University of Athens, Research Funds & Scholarships Department.

2004-2005 MSc Scholarship. Greek State Scholarships Foundation.

Supported by the following Grants

- 2015 **Travel Grant**, EMS Committee for European Solidarity. Talk at the AMS-EMS-SPM International Meeting at Porto.
- 2012-2014 Algebraic modeling of topological and computational structures, research program THALES funded by the Greek Ministry of Education (NSRF) & EU (ESF), Scientific coordinator: Prof. Sofia Lambropoulou.
 - 2012 Hecke algebras and braid groups associated with complex reflection groups, post-doctoral program of Maria Chlouveraki, program of the General Secretariat of Research and Technology (GSRT) & EU (ESF).
 - 2007 **Leukippos**, *Basic Research grant of the National Technical University of Athens*, Scientific coordinator: Prof. Sofia Lambropoulou.

Research Interests

My current and planned research lies in the deeper understanding of the mechanism called *framization* of knot algebras. Namely, the representation theory of the resulting algebras and the polynomial knot and link invariants that are related to these constructions. My research involves tools from knot theory, braid group theory, diagram algebras, harmonic analysis of finite groups and representation theory.

MSC2010: 57M25, 57M27, 20C08, 20C30, 20F36.

Research Papers

- 1 D. Goundaroulis, J. Juyumaya, A. Kontogeorgis and S. Lambropoulou, The Yokonuma–Temperley–Lieb Algebra, *Banach Center Pub.* **103**, pp.73–95 (2014). DOI:10.4064/bc103-0-3.
- 2 D. Goundaroulis, J. Juyumaya, A. Kontogeorgis and S. Lambropoulou, Framization of the Temperley–Lieb Algebra, arXiv:1304.7440 [math.QA]. Submitted for publication.
- 3 D. Goundaroulis, A. Kontogeorgis, On the principal ideal theorem in Arithmetic Topology, arXiv:0705.3937 [math.GT]

Teaching Experience

- 2013-2014 Knot Theory and applications to Statistical Mechanics, Graph Theory, Chemistry and Biology (post graduate course), teaching assistant.
- 2012-2013 Linear Algebra and Analytic Geometry, teaching assistant.
- 2011-2012 Algebra and Applications, teaching assistant.
- 2010-2011 Analysis I, teaching assistant.

Participation in Conferences

- 16-20 Sep Joint Meeting of the German Mathematical Society and the Polish 2014 Mathematical Society, Special Session on Knot Theory, Poznan, Poland. Title of talk: Framizations of the Temperley-Lieb algebra and related link invariants.
- 2-3 May 2014 Algebra Conference, Thessaloniki, Greece. *Title of talk: Framizations of the Temperley–Lieb algebra and related link invariants.*

- 10-13 Feb Winterbraids IV, Dijon, France. *Title of talk: Framization of the Temperley–Lieb* 2014 *algebra*.
- 17-20 Dec Winterbraids III Grenoble, France. *Title of talk: Markov Trace on the Yokonuma-* 2012 *Temperley-Lieb algebra.*
- 12-15 Dec Winterbraids II, Caen, France. *Title of talk: The Yokonuma–Temperley–Lieb* 2011 *algebra*.
- 10-12 Sep Knots in Chicago, Chicago, USA. *Title of talk: The Yokonuma–Temperley–Lieb* 2010 *algebra*.
- 18-25 Jul Knots in Poland III, Warsaw and 25 July-4 August 2010 Bedlewo, Poland. *Title of 2010 talk: The Yokonuma–Temperley–Lieb algebra*.
- 11-29 May Advanced School and Conference on Knot Theory and its Applications to Physics 2009 and Biology, ICTP, Trieste, Italy. *Title of talk: The Yokonuma–Temperley–Lieb algebra*.
- 31 Jun 3 First International Joint Meeting between the AMS and PTS, Warsaw, Poland. *Title* Aug 2007 of talk: On the principal ideal theorem in Arithmetic Topology.
- 31 May-2 Jun 7th Panhellenic Conference on Algebra and Number Theory, Samos, Greece. *Title* 2007 of talk: On the principal ideal theorem in Arithmetic Topology.

Languages

Greek Native

English Advanced