Anders Lundman

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Academic Employment

Feb. 2011-Dec. 2015:
Ph.D student in Mathematics, KTH, Stockholm
Advisor: Professor Sandra Di Rocco

Research Interests

Toric Geometry, Local Positivity, Combinatorial Algebraic Geometry, Algebraic Combinatorics, Vector Bundles, Local Negativity, Applied Algebraic Topology

Publications

Lundman, A. (2015) "Local positivity of line bundles on smooth toric varieties and Cayley polytopes", *Journal of Symbolic Computation*

Di Rocco, S., Lundman, A. & Szemberg, T. (2015) "The effect of points fattening on Hirzebruch surfaces", *Mathematische Nachrichten, Volume 288, Issue 5-6, pages 577-583*

Bauer, T., Di Rocco, S., Harbourne, B., Huizenga, J., Lundman, A., Pokora, P. & Szemberg, T. (2014) "Bounded negativity and arrangements of lines." *International Math Research Notices*

Lundman, A. (2013) "A classification of smooth convex 3-polytopes with at most 16 lattice points", *Journal of Algebraic Combinatorics Vol. 37, Issue 1, pp 139-165*

Preprints

Di Rocco, S., Jabbusch, K. & Lundman, A. (2014) "A note on higher order Gauss Maps", submitted

Chachólski, W., Lundman, A., Ramanujam, R., Scolamiero, M., & Öberg, S. (2015) "Multidimensional Persistence and Noise"

Talks/Posters

Talk, "Higher Order Gauss Maps", SIAM AG15, NIMS, Daejeon, 2015

Talk, "Higher Order Gauss Maps", MEGA 15,University of Trento, Trento, 2015

Talk "Computing the volume of polytopes", PhD Seminar, KTH, Stockholm, 2015

Talk, "Local Positivity and Cayley Polytopes", Negative Curves on Algebraic Surfaces, MFO, Oberwolfach, 2014

Poster, "Local positivity of line bundles on smooth toric varieties and Cayley polytopes", Toric Geometry, Dimers and String Theory, Leibniz Universität Hannover, Hannover, 2013

Poster, "Local positivity of line bundles on smooth toric varieties and Cayley polytopes", MEGA- Effective Methods in Algebraic Geometry, Goethe-Universität, Frankfurt am Main, 2013

Talk, "Rubic's Platonic Solids", PhD Seminar, KTH, Stockholm, 2013

Talk, "What is a Toric Variety", PhD Seminar, KTH, Stockholm, 2012

Conferences/Workshops

SIAM Conference on Applied Algebraic Geometry (AG15), NIMS, Daejeon, 2015

MEGA- Effective Methods in Algebraic Geometry, University of Trento, Trento, 2015

Negative Cuves on Algebraic Surfaces, MFO, Oberwolfach, 2014

Modern Applications of Homology and Cohomology, IMA, Minneapolis, 2013

Topological Data Analysis, IMA, Minneapolis, 2013

MEGA- Effective Methods in Algebraic Geometry, Goethe-Universität, Frankfurt am Main, 2013

GAEL XX+, Institut Fourier, Université de Grenoble, Grenoble, 2012

GAEL XX, Institut Fourier, Universit de Grenoble, Grenoble, 2012

After Pragmatic Mini-conference, Stockholm University, Stockholm, 2011

Nordic Conference in Algerbraic Geometry, KTH, Stockholm, 2011

Workshop on Torpical and Toric Geometry, Fondazione Bruno Kessler, Trento, 2011

MEGA-Effective Methods in Algebraic Geometry, Stockholm University, Stockholm, 2011

Solving Polynomial Equations, KTH/CIAM, Stockholm, 2011

Research Programs/ Summer Schools

Toric Degenerations and Mirror Symmetry, Nordfjordeid, 2014

IMA Thematic Year on Scientific and Engineering Applications of Algebraic Topology, IMA, Minnneapolis, 2013

Toric Geometry, Dimers and String Theory, Leibniz Universität Hannover, Hannover, 2013

GAEL XX, Institut Fourier, Universit de Grenoble, Grenoble, 2012

Summer school on Tropical and Toric Geometry, Fondazione Bruno Kessler, Trento, 2011

Algebraic Geometry with a view towards applications, Institut Mittag-Leffler, Djursholm, 2011

Teaching Experience

2014-2015

Mathematical Circle

2013-2014

Mathematics Project for CSAMH, 1.5 Credits

Algebra and Geometry for CKEM, 7.5 Credits

2012-2013

Discret Mathematics for CDATA, 7.5 Credits

Mathematics Project for CSAMH, 1.5 Credits

Differential Equations for CSAMH, 7.5 Credits

2011-2012

Developer of Mathematics Program, Vetenskapens Hus/House of Science, Stockholm

2010-2011

Algebra och Geometry for CSAMH, 7.5 Credits

One variable Calculus for CMETE, 7.5 Credits

Multi varaiate Calculus for CSAMH, 7.5 Credits

Differential Equations for CSAMH, 7.5 Credits