

Curriculum Vitae

Name: Viktor Vígh

E-mail: vigvik@math.u-szeged.hu

Work experience:

- Assistant professor, Department of Geometry, Bolyai Institute, University of Szeged, Hungary, January 2012 - present
- Postdoctoral fellow, 2011 (Fall) Thematic Program on Discrete Geometry and Applications, Fields Institute, Toronto, Canada, July 2011 - December 2011
- Postdoctoral fellow, Department of Mathematics and Statistics, University of Calgary, Canada, July 2010- June 2011
- Research assistant, Department of Geometry, Bolyai Institute, University of Szeged, Hungary, September 2009- June 2010.

Education:

- 2010, Ph. D. degree in mathematics, University of Szeged, Hungary;
- 2006-2009, Ph. D. student of mathematics, supervisor: Prof. Ferenc Fodor, Bolyai Institute, University of Szeged, Hungary;
- 2006, MSc. degree in mathematics, University of Szeged, Hungary;
- 2001-2006, MSc. student on mathematics major, University of Szeged, Hungary.

Selected publications:

- (1) K. J. Böröczky, F. Fodor, and V. Vígh: Approximating 3-dimensional convex bodies by polytopes with a restricted number of edges, *Beiträge Algebra Geom.*, **49** (2008), 177–193.
- (2) V. Vígh: Typical faces of best approximating polytopes with a restricted number of edges, *Acta Sci. Math. (Szeged)*, **75** (2009), 313–327.
- (3) K. J. Böröczky, F. Fodor, M. Reitzner, and V. Vígh: Mean width of random polytopes in a reasonable smooth convex body, *J. Multivariate Anal.*, **100** (2009), 2287–2295.
- (4) I. Bárány, F. Fodor, and V. Vígh: Intrinsic volumes of inscribed random polytopes in smooth convex bodies, *Adv. Appl. Probab.*, **42** Number 3 (2010), 605–619.
- (5) V. Vígh: Konvex testek közelítése politópokkal (in Hungarian), Ph. D. thesis, pp. 95. Online available at: <http://www.math.u-szeged.hu/phd/phdtheses/vigh-viktor-d.pdf>
- (6) F. Fodor and V. Vígh: Disc-polygonal approximations of planar spindle convex sets, *Acta Sci. Math. (Szeged)*, **78** (2012), No. 1-2, 331–350.
- (7) R. Trelford and V. Vígh: How to sew in practice?, manuscript (2011), pp. 1–10.
- (8) G. Ambrus, P. Kevei, and V. Vígh: The diminishing segment process, *Stat. Prob. Letters.*, **82** (2012), 191–195.
- (9) F. Fodor, P. Kevei and V. Vígh: On random disc-polygons in smooth convex discs, *Advances in Applied Probability* **46** (2014), No. 4, 899–918.
- (10) P. Kevei and V. Vígh: On the diminishing process of Bálint Tóth, accepted for publication in *Transactions of the AMS* (2014), pp. 1–26.
- (11) G. Fejes Tóth, F. Fodor and V. Vígh: The packing density of the n -dimensional cross-polytope, *Discrete and Computational Geometry* **54** (2015), No. 1, 182–194.
- (12) F. Fodor, Á. Kurusa and V. Vígh: Inequalities for hyperconvex sets, accepted for publication in *Advances in Geometry* (2015), pp. 1–16.
- (13) F. Fodor, V. Vígh and T. Zarnócz: On the angle sum of lines, submitted, (2015).

Selected conference and seminar talks:

- April, 2006, National Scientific Students' Associations Local Conference, University of Szeged, Hungary. Title: *3-dimenziós konvex testek közelítése megszorított élszámú politópokkal.* (in Hungarian)
- November, 2006, Colloquium on Combinatorics, University of Magdeburg, Germany. Title: *Approximating 3-dimensional convex bodies by polytopes with a restricted number of edges.*
- April, 2007, National Scientific Students' Associations National Conference, University of Szeged, Hungary. Title: *3-dimenziós konvex testek közelítése megszorított élszámú politópokkal.* (in Hungarian)
- May, 2007, DOSZ Tavasz Szél Conference, Budapest, Hungary. Title: *Konvex testek közelítése politópokkal.* (in Hungarian)
- June, 2007, Geometry Fest, Rnyi Institute, Budapest, Hungary. Title: *Typical faces of best approximating polytopes with a restricted number of edges.*
- September, 2007, Intuitive Geometry Workshop, Banff International Research Station, Banff, Canada. Title: *Typical facets of best approximating polytopes with a restricted number of edges.*
- April, 2008, Bolyai Seminar, Università degli Studi della Basilicata, Potenza, Italy. Title: *Polytopal approximation I.: a useful technique.*
- May, 2008, Bolyai Seminar, Università degli Studi della Basilicata, Potenza, Italy. Title: *Polytopal approximation II.: controlling the number of the edges.*
- May, 2008, Bolyai Seminar, Università degli Studi della Basilicata, Potenza, Italy. Title: *Polytopal approximation III.: stable inequalities.*
- November, 2008, Colloquium on Combinatorics, University of Magdeburg, Germany. Title: *Mean width of random polytopes.*
- November, 2008, Geometry seminar, Bolyai Institute, Univ. of Szeged, Hungary. Title: *Körkonvex alakzatok közelítése körpoligonokkal.* (in Hungarian)
- March, 2009, Geometry seminar, Bolyai Institute, Univ. of Szeged, Hungary. Title: *Véletlen politópok vegyes térfogatainak szórásáról.* (in Hungarian)
- May, 2009, Institute seminar, Bolyai Institute, Univ. of Szeged, Hungary, Title: *Véletlen politópok vegyes térfogatai.* (in Hungarian)
- November, 2009, Colloquium on Combinatorics, University of Magdeburg, Germany. Title: *Disc-polygonal approximation of planar spindle convex sets.*
- May, 2010, Ph. D. degree defence, University of Szeged, Hungary. Title: *Konvex testek közelítése politópokkal.* (in Hungarian)
- November, 2010, CCDG Seminar, University of Calgary, Canada. Title: *Disc-polygonal approximations of planar spindle convex sets.*
- May, 2011, Workshop on Harmonic Analysis in Convex Geometry, Banff International Research Station, Banff, Canada. Title: *How to sew in practice?*
- June, 2011, CMS Meeting, Asymptotic Geometric Analysis and Convex Geometry, Edmonton, Canada. Title: *Disc-polygonal approximations of planar spindle convex sets.*
- December, 2011, CMS Meeting, Discrete Geometry section, Toronto, Canada. Title: *On the diminishing process of B. Tóth*
- March, 2012, Kerékkjártó Geometry Seminar, Bolyai Institute, Univ. of Szeged, Hungary. Title: *How to sew in practice?*
- December, 2012, Geometry Seminar, Rnyi Institute, Budapest, Hungary. Title: *On the diminishing process of B. Tóth*
- November, 2013, Kolloquium ber Kombinatorik, Ilmenau, Germany. Title: *Some inequalities on spindle convex discs.*
- December, 2013, Sachsen-anhaltinischer Geometrietag & Friends 2013, Magdeburg, Germany. Title: *Some inequalities on spindle convex discs.*

- February, 2014, Kerékjártó Geometry Seminar, Bolyai Institute, Univ. of Szeged, Hungary. Title: *Orsókonvex dualitás* (in Hungarian)
- March, 2014, Geometry Seminar, Rényi Institute, Budapest, Hungary. Title: *A spindle convex duality*
- May, 2014, Szeged Geometry Day, Bolyai Institute, Univ. of Szeged, Hungary. Title: *Spindle convex inequalities*
- June, 2015, Intuitive Geometry, Lszl Fejes Tth Centennial, Rnyi Institute, Budapest, Hungary. Title: *On the diminishing process of Bálint Tóth*

Conference organization

- Szeged Workshop in Convex and Discrete Geometry, University of Szeged, Hungary, 2012.

Awards, Honours, Grants:

- 2015-2018 János Bolyai Research Scholarship of the Hungarian Academy of Sciences (3 years)
- 2013-2014 Magyary Zoltán Postdoctoral Fellowship (16 months).
- 2011, Fields Postdoctoral Fellowship in Thematic Program on Discrete Geometry and Applications, Fields Institute, Toronto, Kanada (6 months).
- 2010, Postdoctoral Fellowship at the University of Calgary, Calgary, Kanada (1 year).
- 2007, Special Award of Pro Scientia Gold Medalists, National Scientific Students' Associations National Conference, Hungary.
- October, 2007- December, 2007; Visitor student, University College London, London, U.K. Supervisor: Prof. Imre Bárány
- February, 2008- July, 2008; Università degli Studi della Basilicata, Potenza, Italy, ERASMUS fellowship. Supervisor: Prof. Gábor Korchmáros
- 2007, First prize, National Scientific Students' Associations National Conference.
- 2002, Second prize, 10th International Mathematical Competition, Warsaw, Poland.

Supervised BSc thesises

- Ocskó Olivér: Az affin ívhossz elemi bevezetése (2012)
- Csák Attila: Képtárak felügyelése mozgó örökkel (2012)
- Siroki Dávid: Izoperimetrikus típusú egyenlőtlenségek az orsókonvexitásban (2013)
- Páli Róbert László: Képtárprobléma szakaszonként konvex görbe által határolt halamazra (2014)
- Kátay Csaba András: Az izoperimetrikus és az izodiametrikus egyenlőtlenség (2014)
- Berec Aleksandra: A Pick-tétel (2015)

Other mathematics related activities

- Editor of problems section of the journal Polygon (Szeged), 2014-.
- Problems proposed to Középiskolai Matematikai és Fizikai Lapok: A.497., B.3431., B.4311., B.4331., B.4391., B. 4475, B. 4487., B. 4660.
- Not peer reviewed article: Vígh-Mácsai Zsanett, Vígh Viktor: Háromszögek fedése két körrel, Polygon (Szeged), XXI. kötet 1.-2., (2013), 59-74.
- Member of the organizer committee and jury of the Bonifert Domonkos Matematikaverseny, 2006-2010.