Jan Hladký*

Employment

Sep '14-now	Marie Curie Intra-European Fellow held at the Mathematics Institute of the Czech Academy of Sciences, Czech Rep.
Sep '11-Aug '14	EPSRC Fellow in Mathematics held at the Mathematics Institute, University of Warwick, United Kingdom

Education

Oct '09-Aug '11	Ph.D. in *Computer Science* Department of Computer Science, University of Warwick, United Kingdom

– Advisor Artur Czumaj, thesis "Graph containment problems"

Oct '08-Mar '13	Ph.D. in *Computer Science* Faculty of Mathematics and Physics, Charles University in Prague, Czech Rep.

– Advisor Daniel Král', thesis "Structural graph theory"

– From Oct '08–Oct '09 visiting TU Munich, afterwards at Uni Warwick

Sep '06-Sep '08	Mgr. (M.Sc. equivalent) in *Mathematical Structures* Faculty of Mathematics and Physics, Charles University in Prague, Czech Rep.

– Winter semester 2006/07 at ETH Zürich, Switzerland, as part of the study

– Advisor Daniel Král', thesis "Szemerédi Regularity lemma and its applications"

Aug '03-Sep '06	Bc. (B.Sc. equivalent) in *Mathematics*, Summa Cum Laude Faculty of Mathematics and Physics, Charles University in Prague, Czech Rep.

– Advisor Robert Šámal, thesis "Structural properties of graphs — probabilistic and deterministic point of view"

Awards during university studies, fellowships, grants

- Marie Curie Intra-European Fellowship "Pseudorandomness and explicit constructions in discrete mathematics" (Sep 2014– Aug 2016), sole researcher. Scientist in charge: Pavel Pudlák.
- EPSRC Fellowship "Extremal combinatorics and asymptotic enumeration" (2011– 2014).
- Grants from the London Mathematical Society, DIMAP, and the British Combinatorial Committee for organizing the British Workshop on Extremal and Probabilistic Combinatorics 2010 (co-organized by Artur Czumaj and Diana Piguet).

Apr '09-Oct '09	BAYHOST Fellowship
Oct '08-Mar '09	DAAD Fellowship
Jan '08-Dec '10	Principal investigator of the grant *Szemerédi Regularity Lemma and its Applications* of Grant Agency of Charles University.

– Co-investigators: D. Král', D. Piguet

'07 Third prize for the project *Elementary proof of Rayleigh formula for graphs* in section Mathematical Structures at Czech and Slovak Student scientific competition 2007, Olomouc; joint work with J. Cibulka.

'07 First prize for the project *Induced Bipartite Subgraphs in a Random Cubic Graph* in section Theoretical Computer Science at Czech and Slovak Student scientific competition 2007, Olomouc.

Teaching

- Lecturer at the Czech Technical University

'14/15 01NAH *Stochastic processes*, Autumn Term, one 3-hour session per week.

- Advisor of a 3rd year (undergraduate) thesis on the PCP theorem (Chris Dick, 2012/2013), and on Coding theory (Alistair Ross, 2013/2014); University of Warwick.

- Lecturer at the University of Warwick

'13/14 Supervision as part of a 4th year *Reading module* focused on *Phase transition in discrete structures*, Terms 1 and 2.
Topics included: Phase transitions in k-SAT, coloring sparse random graphs, Ising models.

'12/13 MA3H4 *Random Discrete Structures*, Term 1, $3\times$ 60min sessions per week.
An optional module for 3rd year Maths students. Topics linking probability and discrete mathematics: random graphs, applications of the probabilistic method in combinatorics, randomized algorithms, expander graphs and their applications.

'11/12 MA131 *Analysis 2*, Term 2, $3\times$ 60min sessions per week
A core module for 1st year Maths students. Standart topics of analysis starting from continuity of functions and finishing with Taylor's Theorem and L'Hôpital's Rule.

- Teaching assistant at the University of Warwick

'09/10, '10/11 CS136 *Discrete Mathematics and its Applications 1*, Term 1

'09/10 CS256 *Algorithmic Graph Theory*, Term 2

- Teaching assistant at Charles University in Prague

'05/06, '07/08 DMI002 *Discrete mathematics*, Winter term

Participation in conferences, workshops and research projects; talks

Mar '15 Talk " Property testing and limits of sparse graphs", Complexity Seminar, Czech Academy of Sciences.

Feb '15 Talk "The Loebl–Komlós–Sós Conjecture", Colloquium on Experimental Mathematics, University of Copenhagen, Denmark.

Jan '15 Talk "The Loebl–Komlós–Sós Conjecture", Seminar Algebra, Geometrie und Kombinatorik, TU Dresden, Germany.

Dec '14 Talk "Property testing, parameter estimation, and graph limits" at Kolloquium Mathematische Informatik, Goethe-Universität Frankfurt am Main

Nov '14 Popular talk *3×kontrola* on "Seminar on contemporary mathematics" Faculty of Nuclear Engineering, Czech Technical University.

Oct '14 Plenary lecture *Limits of sparse graph sequences* at Eduard Čech Institute Workshop, Třešť, Czech Republic

Oct '14 Talk *Limits of graph sequences, dense and sparse* at Algebra seminar, Masaryk University, Czech Republic

Aug '14 Talk *An approximate version of the tree packing conjecture* at Max Planck Institute for Informatics, Saarbrücken, Germany

Jul '14 Participation in a 1-week workshop Extremal combinatorics, International Centre for Mathematical Sciences, Edinburgh, UK

  – Talk *Inhomogeneous random graphs*

Jun '14 Invited talk at *Cliques in inhomogeneous random graphs* at Graph limits, groups and stochastic processes Workshop, Budapest, Hungary

Jun '14 Talk *An asymptotic version of the tree packing conjecture* at Combinatorics Optimisation seminar, Université Joseph Fourier Grenoble, France

Jun '14 Talk *A density Corrádi-Hajnal Theorem* at Grafy 2014 conference, Teplice nad Bečvou, Czech Republic

Feb '14 Visiting Ludwig-Maxmilian University Munich, Germany

  – One week, work with Konstantinos Panagiotou and Diana Piguet

Jan '14 Visiting Mittag-Leffler Institute, Stockholm, Sweden

  – Talk *Loebl-Komlos-Sos Conjecture and embedding trees in sparse graphs*

Jan '14 Invited talk *Extremal problems for trees* at *Tříkrálové setkání mladých českých, slovenských a spřátelených matematiků*, Czech Technology University, Prague, Czech Rep.

Apr–Jun '13 Longer-term visit Alfréd Rényi Institute of Mathematics, and Eötvös Loránd University, Budapest, Hungary

  – Talk *The Ajtai–Komlós–Simonovits-Szemerédi decomposition of sparse graphs* at Eötvös Loránd University

Apr '13 Participant at *Limits of discrete structures* "Arbeitsgemeinschaft", Oberwolfach, Germany

Oct '12 Talk *f-vectors of three dimensional flag Gorenstein* complexes* at University of Warwick, UK

Jun '12 Participant of *Perspectives in Discrete Mathematics*, European Science Foundation, Barcelona, Spain

May '12 Participant of *Conference on Graphs and Analysis*, Institute for Advanced Studies Princeton, NJ, USA

Apr '12 Participant at *Hypergraph Turán Problem* workshop, Oberwolfach, Germany

  – Talk *Structure of sparse graphs*

Mar '12 Participant of *Probabilistic methods in Graph Theory*, University of Birmingham, UK

  – Talk *Loebl-Komlos-Sos Conjecture, and structure of sparse graphs*

Mar '12 Talk *f-vectors of three dimensional flag Gorenstein* complexes* at University of Birmingham, UK

Oct '11 Invited lecturer at CCOSA workshop; a 3-hour lecture series on *Graph Limits*, Beroun, Czech Rep.

Sep '11 Participant of school *Random Motion and random graphs*, Berlin, Germany

  – Talk *Loebl-Komlós-Sós Conjecture and embedding trees into sparse graphs*, Free University Berlin

Aug/Sep '11 Participant of *Prague School on Statistical Mechanics*, Prague, Czech Rep.

Jun '11 Participant of summer school *Higher Order Fourier Analysis*, Budapest, Hungary

May '11 Invited talk *Hamilton cycles in dense vertex-transitive graphs* at *London Combinatorics Colloquia*

Apr '11 Participant of *Spring school "Limits of finite graphs"*, Leipzig, Germany

Apr '11 Participant of *Spring school in discrete probability, ergodic theory and combinatorics*, Graz, Austria

  – Talk *Hamilton cycles in dense vertex-transitive graphs*

Mar '11 Talk *Hamilton cycles in dense vertex-transitive graphs* at Charles University, Czech Rep.

Oct '10 *Hamilton cycles in dense vertex-transitive graphs* at Royal Holloway Pure Math Seminar, UK

Aug '10 Participant at *Workshop on Extremal and Probabilistic Combinatorics*, Frauenchiemsee, Germany

  – Talk *Turánnical Hypergraphs*

Jul '10 Organizer of *Workshop on Extremal and Probabilistic Combinatorics*, Petersfield, UK

  – A one week-event. Hosted more than 30 participants, with Oleg Pikhurko Balazs Szegedy keynote speakers

  – Coorganized by Artur Czumaj and Diana Piguet

Jun '10 Talk *Loebl-Komlós-Sós Conjecture* at the occasion of Endre Szemerédi's receipt of Doctor Honoris Causa degree, Charles University, Czech Rep.

Mar '10 Princeton University, USA

  – Worked with Daniel Král and Serguei Norine

- Talk: *Tree packing conjectures and the Graceful tree labeling conjecture*

Mar '10 Talk *Limits of Cayley graphs* at Columbia University, USA

Feb '10 Talk *Limits of Cayley graphs* at University of Birmingham, United Kingdom

Jan '10 Talk *Tree packing conjectures and the Graceful tree labeling conjecture* at University of Oxford, United Kingdom

Jan '10 Talk *On tree packing conjectures* at London School of Economics, United Kingdom

Jan '10 Charles University, Czech Rep.

- Worked with Daniel Král'
- Talk: *Tree packing conjectures and the Graceful tree labeling conjecture*

Sep '09 EuroComb 2009, Bordeaux, France

- Talks: *Loebl-Komlós-Sós Conjecture: dense case*, and *Counting flags in triangle-free digraphs*

Aug '09 Random Structures and Algorithms Conference, Poznań, Poland

- Talk: *Counting flags in triangle-free digraphs*

May-Jun '09 Rényi Institute, Budapest, Hungary

- Worked with Diana Piguet, Miklós Simonovits, Maya Stein, and Endre Szemerédi

May '09 University of Warwick, United Kingdom

- Worked with Peter Allen, Julia Böttcher, and Diana Piguet
- Talk: *Counting flags in triangle-free digraphs*

Mar '09 Ecole Polytechnique Fédérale de Lausanne, Switzerland

- Talk: *Embedding thin 3-colorable graphs*

Feb '09 Princeton University, USA

- Worked with Daniel Král and Serguei Norine
- Talk: *Square-paths and square-cycles in graphs with high minimum degree*

Feb '09 Charles University in Prague, Czech Rep.

- Talk: *Embedding large thin graphs*

May-Jun '08 DocCourse: Random and Quasirandom Graphs, Humbold University Berlin, Germany

'08, '09 Several short visits to Rényi Institute, Budapest, Hungary

- Worked with Diana Piguet, Miklós Simonovits, and Endre Szemerédi

Apr '08 Spring School on Combinatorics 2008, Rokytnice nad Jizerou, Czech Rep.

- Organiser
- Talk: *Integer and fractional packing*

Feb '08 Princeton University, USA

- Worked with Daniel Král and Serguei Norine

Jan '08 Rutgers University, USA

- Talk: *Loebl-Komlós-Sós Conjecture: dense case*

Jan '08 Technical University Munich, Germany

- Worked in Graph theory with Julia Böttcher, Diana Piguet and Anusch Taraz

Dec '07 Humbold University, Berlin, Germany

- Worked in Graph theory with Diana Piguet and Mathias Schacht

Sep '07 Workshop on Frequency Assignment Problems, Sádek, Czech Rep.

Sep '07 EuroComb 2007, Seville, Spain.

Jul-Aug '07 Midsummer Combinatorial Workshop, Charles University in Prague, Czech Rep.

- Talk: *Rank of divisors on tropical curves*

May-Jul '07 DocCourse: Integer Points in Polyhedra, Free University Berlin, Germany

Apr '07 Spring School on Combinatorics, Vysoká Lípa, Czech Rep.

- Organizer
- Talk: *Counting, sampling and integrating: Algorithms and Complexity VII*

Mar '07 University of Alaska, Fairbanks, USA

- Worked in graph theory with John Gimbel and Daniel Král'

Feb-Mar '07 Georgia Institute of Technology, USA

- Worked in graph theory with Daniel Král' and Serguei Norine

Sep-Oct '06 University of Ljubljana, Slovenia

- Worked in graph theory with Daniel Král', Marek Krčál and Riste Škrekovski

Sep '06 International Conference on Interdisciplinary Mathematical & Statistical Techniques, Polytechnic Institute of Tomar, Portugal

- Talk: *Induced bipartite subgraphs in a random cubic graph*

Jun-Jul '06 Research Experience for Undergraduates, Rutgers University, USA

- Worked on problems from discrete geometry, random graphs and structural graph theory

Apr '06 Spring School on Combinatorics, Borová Lada, Czech Rep.

- Organizer
- Talk: *Evasiveness of graph properties III*

Jul-Aug '05 Workshop on Extremal Combinatorics, Charles University in Prague, Czech Rep.

Jul '05 Midsummer Combinatorial Workshop, Charles University in Prague, Czech Rep.

Jun-Jul '05 Research Experience for Undergraduates, Rutgers University, USA

- Research topic: *Correlation inequalities for graphs*, advisor Jeff Kahn

May '05 Spring School of Combinatorics, Borová Lada, Czech Rep.

- Talk: *A tree version of König's theorem for hypergraphs*

Other

- Grant reviewer for a national central-European science foundation in 2015.
- Referee for *Acta Universitatis Matthiae Belii, series Mathematics* (1 article), *Ars Combinatoria* (1), *Combinatorica* (5), *Discrete Mathematics* (3), *European Journal of Combinatorics* (2), *Graphs and Combinatorics* (1), *Information Processing Letters* (1), *Journal of Combinatorial Theory, series A* (1), *Journal of Combinatorial Theory, series B* (2), *Journal of Graph Theory* (2), *Linear and Multilinear Algebra* (1), *Proceedings of the London Mathematical Society* (1), *Random Structures and Algorithms* (4), *SIAM Journal on Discrete Mathematics* (3). Referee for *Lecture Notes in Mathematics [Springer]* (1).
- Reviewer for *ICALP 2010* (1), *MFCS 2010* (1), *SODA 2011* (2).
- Reviewer for Zentralblatt (2011–2013) and MathSciNet (2010–now).