

CURRICULUM VITAE  
VOLODYMYR V. NEKRASHEVYCH

**Official address:**

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**Current position:** Associate Professor.

**Research interests:**

Group theory (groups generated by finite automata, self-similar and branch groups; hyperbolic groups); Dynamical systems (holomorphic dynamics; groups, inverse semigroups and groupoids acting on the Cantor set); Operator algebras (algebras associated to self-similar group actions, hyperbolic dynamical systems and tilings);

**Education and degrees:**

2006 Habilitation (Doctor of Sciences) defended in Kyiv Taras Shevchenko University. Thesis title: “*Self-similar groups*”.

1998 Ph.D. defended in Kyiv Taras Shevchenko University. Thesis title: “*Metric properties of non-amenable groups*”. Supervisor: Prof. Vitaliy I. Sushchansky.

1997 M.S. in Mathematics (with honors).

**Professional career:**

from 2005 Associate Professor at Texas A&M University.

2003–2005 Visiting Assistant Professor at International University Bremen (Germany).

1997–2005 Assistant Professor, Kyiv National Taras Shevchenko University, Mechanics and Mathematic faculty (Ukraine).

**Research visits:**

1998, May — Wrocław University (Poland),  
1999, February — Brasília University (Brazil),  
1999, May — Geneva University (Switzerland),  
1999, June–July — Wrocław University (Poland),  
2000, May — Geneva University (Switzerland),  
2000, August — Brasília University (Brazil),  
2001, March — Royal Technical Institute in Stockholm (Sweden),  
2001, May–June — Geneva University (Switzerland),  
2001, June — ETH Zürich (Switzerland),  
2002, (Humboldt fellowship, 1 year) — Düsseldorf Heinrich Heine University,  
2002, July — Università degli Studi di Roma - La Sapienza, (Italy),  
2003, June — Geneva University (Switzerland),  
2004, June — Ecole Polytechnique Federale Lausanne and Geneva University (Switzerland),  
2005, Mai — Uppsala University (Sweden).  
2007, Mai — Isaac Newton Institute for Mathematical Sciences, Cambridge, (UK).  
2007, July — Erwin Schrödinger Institute, Vienna (Austria).

**Grants and Awards:**

2007 — NSF grant DMS-0757988.  
2006 — NSF grant DMS-0605019.  
2001 — Alexander von Humboldt fellowship.  
2000 — award of Kyiv Taras Shevchenko University for young scientists.  
1999 — Kasa Mianowskiego grant (Poland).  
1998 — award of Petryshyn foundation for young mathematicians.  
1998 — International Soros Science Foundation grant for high school teachers.  
1997 — award of Ukrainian National Academy of Sciences for university students for the work “*Equivalence of nets in nonamenable groups*”.

**Participated conferences:**

1996 — International Conference in memory of Kravchuk, Kyiv, Ukraine.  
1996 — IV International Conference “*Groups and Group Rings*”, Lubin Velykyj, Ukraine.  
1997 — International Conference in Algebra in Memory of Gluskin, (plenary talk), Slovjansk, Ukraine.  
1998 — VI International Conference “*Groups and Group Rings*”, Wisła, Poland.

- 1998 — International Conference in Memory of Pontryagin, Moscow, Russia.
- 1999 — VII International Conference “*Groups and Group Rings*”, (invited talk), Bialystok, Poland.
- 1999 – Symposium on Computation in Group Theory and Geometry, (invited talk), Warwick University, England.
- 2000 — XVI Escola de Algebra, Brasilia, Brazil.
- 2000 — “*Ergodic theory and dynamical systems*”, Katsyveli, Ukraine.
- 2000 — Russian-Swedish conference “*Combinatorics, Dynamics, Probability*” Stockholm, Sweden.
- 2001 — “*Random walks and geometry*”, workshop, Vienna, Austria.
- 2001 — Third International Algebraic Conference in Ukraine, (invited talk), Sumy, Ukraine.
- 2001 — International Conference on Functional Analysis, Kyiv, Ukraine.
- 2002 — Workshop “*Discrete groups and geometric structures with applications*”, Crystallographic groups and their generalizations III, Kortrijk, Belgium.
- 2002 — International Conference on Semigroups and Groups in Honor of the 65th Birthday of John Rhodes, Porto, Portugal.
- 2002 — Conference on Harmonic analysis, (invited talk), Luxembourg and Metz, France.
- 2003 — Oberwolfach meeting “*Profinite Groups and Discrete Subgroups of Lie Groups*” Germany.
- 2003 — International Conference “*GROUP THEORY: combinatorial, geometric, and dynamical aspects of infinite groups*”, (plenary talk), Gaeta, Italy.
- 2003 — IV International Algebraic conference in Ukraine, (invited talk), Lviv, Ukraine,
- 2004 — “*Analysis and Geometry on Random Structures*”, Lille, France.
- 2004 — “*Geometric Group Theory, Random Walks and Harmonic Analysis*”, Cortona, Italy.
- 2004 — “*Groups acting on rooted trees and  $CAT(0)$  spaces*”, (invited talk), Orsay, France.
- 2005 — “*Groups and Group Rings XI*”, (invited talk), Będlewo, Poland.
- 2005 — “5th International Algebraic Conference in Ukraine”, (plenary talk), Odessa, Ukraine.
- 2005 — “Geometric and Probabilistic Methods in Group Theory and Dynamical Systems”, (plenary talk), College Station, Texas.
- 2005 — “Algebra and Discrete Mathematics”, (invited talk), Kiev, Ukraine.
- 2006 — Holomorphic dynamics workshop. In celebration of John Milnor’s 75th birthday, (invited talk), Toronto, Canada.
- 2006 — “ $G^3$  conference — Geometric Group Theory on the Gulf Coast Conference”, (invited talk), Mobile, Alabama.
- 2006 — “Asymptotic Methods in Groups and Algebras”, (an invited series of three talks), Sao Paulo, Brasil.
- 2006 — “Combinatorial and geometric group theory” (invited talk), Vanderbilt University, Nashville, TN.
- 2006 — “Selfsimilar groups and conformal dynamics” (invited talks), American Institute of Mathematics, Palo Alto, California.

- 2006 — “Analysis and Probability on Fractals” AMS Eastern Section Meeting, University of Connecticut.
- 2006 — “Special Session on Complexity and Computability in Analysis, Geometry, and Dynamics” CMS Winter 2006 Meeting, Toronto, Canada.
- 2007 — “Groupes 2007. Hyperbolicity and convergence groups” (invited talk) February Luminy, France.
- 2007 — “Special Session on Operator Algebras” AMS Western Section Meeting Tucson, AZ.
- 2007 — “Analysis on Graphs and its Applications”, Isaac Newton Institute for Mathematical Sciences, Cambridge, UK.
- 2007 — “Analysis on Graphs and Fractals” (invited talk), Cardiff, UK.
- 2007 — “Groups and their actions” (invited talk), Bedlewo, Poland.
- 2007 — “A celebration of group theory” (invited talk) New York.
- 2007 — “Dichotomy Amenable/Nonamenable in Combinatorial Group Theory” (invited talk), Palo Alto, CA.
- 2007 — “Topics in Geometric Group Theory” (invited talk), MSRI, Berkeley, CA.

### Seminar and Colloquium talks:

Kyiv Taras Shevchenko University  
 Mathematical Institute of Ukrainian Academy of Sciences  
 Wrocław University (Poland)  
 Geneva University (Switzerland)  
 Brazilia University (Brasil)  
 Royal Technical Institute in Stockholm (Sweden)  
 Düsseldorf Heinrich Heine University (Germany)  
 Università degli Studi di Roma (Italy)  
 Université des Sciences et Technologies de Lille I (France)  
 International University Bremen (Germany)  
 ETH Zürich (Switzerland)  
 Texas A&M University (USA)  
 SUNY Stony Brook (USA)  
 Uppsala University (Sweden)  
 Vanderbilt University (Nashville, USA)  
 Rice University (Houston, USA)  
 Colloquium of Kyiv Mathematical Society (Kyiv, Ukraine)

### Teaching at Summer Schools

- 2004 — “*Self-similar groups*” a cycle of 5 lectures at “Autour de groupes agissant sur des arbres 3ème cycle romand ` Villars” (Villars, Switzerland).
- 2004 — “*Automata groups and holomorphic dynamics*” a cycle of 4 lectures at “Advanced Course on Automata Groups” (Barcelona, Spain).
- 2006 — “*Holomorphic Dynamics and Group Theory*” a cycle of 3 lectures at IV-th Summer School “Algebra, Topology, Functional and Stochastic Analysis” (Kozyova, Ukraine).
- 2007 — “*Contracting groups*” a minicourse of 5 lectures at “Amenability”, a semester at Erwin Schroedinger Institute, Vienna, Austria.