

# Vera Vértesi

*Date of Birth:* April 13, 1982

*Place of Birth:* Budapest

*Citizenship:* Hungarian

Institute of Mathematics  
Eötvös Loránd University  
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Hungary

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## RESEARCH INTERESTS

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Heegaard Floer homologies, contact structures, Legendrian knots, fillings of contact structures

## EDUCATION

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- September, 2005–December, 2008 **Eötvös Loránd University (ELTE)**, Budapest, Hungary  
graduate student in Mathematics  
*Advisors:* Professors András Stipsicz and Csaba Szabó  
*Thesis title:* Legendrian and transverse knots  
in the light of Heegaard Floer homology
- September, 2008–October, 2008 **Georgia Institute of Technology**, Atlanta, GA, USA  
visiting graduate student (*host:* Professor John Etnyre)
- October, 2007–May, 2008 **Columbia University**, New York, NY, USA  
visiting graduate student (*host:* Professor Péter Ozsváth)
- October, 2005–March, 2006 **Swiss Federal Institute of Technology (ETH)**  
Zürich, Switzerland, visiting graduate student
- September, 2000–May, 2005 **Eötvös Loránd University (ELTE)**, Budapest, Hungary  
Diploma in Mathematics, with honors  
*Advisor:* Professor Csaba Szabó  
*Thesis title:* Complexity of Checking Identities in  
0-simple Semigroups
- September, 1996–May, 2000 **Fazekas Mihály Secondary School**, Budapest, Hungary  
Special Program in Mathematics

## HONORS AND AWARDS

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- 2008 **Eötvös Fellowship** of the Hungarian Ministry of Education  
*research fellowship to spend at a foreign research institution*
- 2005 **Pro Scientia Golden Medal Award**, awarded every two years  
*to 45 “young scientists with exceptional research achievements”*  
**Excellent student Award**, Eötvös Loránd University  
Special First Prize at the  
**National Conference of Scientific Students’ Associations**  
First Prize at the **National Conference of Scientific Students’ Associations**
- 2004–2005 **Scholarship of the Hungarian Republic**
- 2004 **Rényi Kató Award** of Bolyai János Mathematical Society  
*“for young mathematicians with extraordinary academic results”*
- 2003 Second Prize at the  
**National Conference of Scientific Students’ Associations**

- 2003–2004 Four First Prizes on the  
**Conference of Scientific Students' Associations at ELTE**  
 2002–2004 **Regular Scientific Scholarship**, Eötvös Loránd University  
 2000 **Fazekas Award**, Fazekas Mihály Secondary School  
*given to the top students of the school at the end of their secondary studies*

### TEACHING EXPERIENCES

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- 2002, 2007 **Teaching Assistant, Linear Algebra and Geometry**  
 Eötvös Loránd University  
 2003–2004 **Teaching Assistant, Galois Theory**  
 Budapest Semester of Mathematics  
 2003–2004 **Teaching Assistant, Number Theory**  
 Budapest Semester of Mathematics  
 2001–2005 **Teaching Assistant, Introduction to Computer Science**  
 Budapest University of Technology and Economics  
 1997–1999 **Problem Solving Seminar**, for 12-14 year old children  
 Fazekas Mihály Secondary School

### PUBLICATIONS

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#### **Transversely nonsimple knots.**

*Algebraic & Geometric Topology*, 8:1481–1498, 2008.

#### **On invariants for legendrian knots.** (with A. Stipsicz)

*Pacific Journal of Mathematics*, Vol.239 1:157–177, 2009.

#### **Identities in 0-simple semigroups.** (in Hungarian)

*Matematikai Lapok, Új sorozat*, 13:54–75, 2006/2007.

#### **The membership problem in finite flat hypergraph algebras.** (with G. Kun)

*International Journal of Algebra and Computation*, 17:449–459, 2007.

#### **The complexity of the identity checking problem in 0-simple semigroups.**

(in Russian, with S. Pletseva) *Journal of Ural State University*, 43:72–103, 2006.

#### **The complexity of checking identities for finite matrix rings.** (with Cs. Szabó)

*Algebra Universalis*, 51:439–445, 2004.

#### **The complexity of the word-problem for finite matrix rings.** (with Cs. Szabó)

*Proceedings of the American Mathematical Society*, 132:3689–3695, 2004.

### TALKS AT CONFERENCES

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- September, 2008 **AIM Workshop: Legendrian and transverse knots**, Palo Alto, USA  
 May, 2008 **2008 Program for Women in Mathematics**, IAS, Princeton, USA  
 July, 2007 **Conference on Universal Algebra and Lattice Theory**  
 Szeged, Hungary, *planary speaker*  
 July, 2005 **Conference on Universal Algebra and Lattice Theory**  
 Szeged, Hungary  
 September, 2004 **Summer School on General Algebra and Ordered Sets**,  
 Malá Morávka, Czech Republic  
 July, 2004 **Logic Colloquium 2004**, Torino, Italy, *invited speaker*  
 May–June, 2004 **International Algebraic Conference**, Moscow, Russia  
 August, 2003 **Novi Sad Algebraic Conference**, Novi Sad, Serbia  
 July, 2002 **Conference on Universal Algebra and Lattice Theory**  
 Szeged, Hungary

**SEMINAR TALKS**

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Columbia University (2008), Duke University (2008), Georgia Institute of Technology (2008), University of Georgia (2008), Eötvös Loránd University (2006, 2007, 2008), Alfréd Rényi Mathematical Institute (2003, 2008), ETH Zürich (2005), University of Novi Sad (2004), Attila József University (2003)

**SUMMER SCHOOLS AND ACADEMIC VISITS**

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January, 2009	<b>École d'hiver á la Llagonne</b> , la Llagonne, France
August, 2008	<b>Holomorphic Curves Workshop</b> , Stanford, CA, USA
September–October, 2007	<b>University of Cape Town</b> , Cape Town, South Africa ( <i>host</i> : Professor David Gay)
August, 2007	<b>Socrates Intensive Program "GAMAP"</b> , Antwerp Geometric and Algebraic Methods with Application in Physics
June–July, 2006	<b>IAS/PCMI Summer Program</b> in <b>Low Dimensional Topology</b> , Park City, Utah
October–November 2004	<b>CEEPUS Scholarship</b> , Babes-Bolyai University, Cluj, Romania
July, 2003	<b>SMS–NATO ASI in Montreal</b>

**RESEARCH GRANTS**

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2007–2009	<b>Hungarian Scientific Research Fund</b> , OTKA grant number 67867
2007–2011	<b>Hungarian Scientific Research Fund</b> , OTKA grant number 67870