CURRICULUM VITAE

Khodabakhsh Hessami Pilehrood

Date and place of birth	August 23, 1965; Ardebil, Iran
Citizenship	Iran
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	Faculty of Science
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Research interests

Number theory in general, diophantine equations, diophantine approximations, transcendental number theory, linear independence and irrationality, measures of irrationality and transcendence, hypergeometric functions, Riemann zeta function, multiple zeta values, number-theoretic remarkable constants, general topology.

Education and Research

• **Ahwaz Shahid Chamran University**, Ahwaz, Iran (1988-1993)
◦ Bachelor of Science in Pure Mathematics (1993)

• **Lomonosov Moscow State University**, Moscow, Russia (1994-2001)
◦ Master of Science in Pure and Applied Mathematics (June, 1997)
◦ Doctor of Philosophy in Mathematics (May, 2000)
Thesis titled "On solvability of small degree Diophantine equations" written under the supervision of Prof. V. N. Chubarikov and Prof. M. Z. Garaev
◦ Post-doctoral position (2000-2001)

• **Institute for Studies in Theoretical Physics and Mathematics (IPM)**, Tehran, Iran
(2002-2003)
(2004-present)

○ Research position supported by IPM

• **Research Institute for Fundamental Sciences**, Tabriz, Iran
(2003-2004)
○ Research position

Employment

• **Shahrekord University**, Shahrekord, Iran, Assistant Professor (2001-present)
Vice-Dean of the Faculty of Science (September 2004-October 2005)
    Includes
    ○ teaching graduate and postgraduate mathematics courses
    ○ instructing postgraduate students
    ○ participation in the research activities of the department

Teaching Experience

• **Shahrekord University**, Assistant Professor (2001-present)
○ *Mathematical Analysis I*, Mathematics Department
○ *Mathematical Analysis II*, Mathematics Department
○ *General Topology*, Mathematics Department
○ *non-Euclidean Geometry*, Mathematics Department
○ *Number Theory*, Mathematics Department
○ *Calculus I*, Engineering Department
○ *Calculus II*, Engineering Department
○ *Calculus III*, Engineering Department
○ *Measure Theory*, Mathematics Department
○ *Algebraic Number Theory*, Mathematics Department
○ *Algebraic Topology*, Mathematics Department

Membership

• **Iranian Mathematical Society** (since September 1993)
• **American Mathematical Society** (since January 2006)
• **Mathematical Association of America** (since 2006)

Editing Activity
○ Reviewer for the Mathematical Review of the American Mathematical Society
(since 2005)

Presentations

● **Seminars and Conferences**
○ Number Theory Seminar, Lomonosov Moscow State University (1997-2001)
○ Seminar on Analytic Number Theory, Lomonosov Moscow State University (1997-2001)
○ *A note on a system of Pell's equations.* The 30-th International Conference on Mathematics (Ardebil, Iran, September 1999)
○ *On the third-degree Diophantine equations*, The 33-th International Conference on Mathematics (Mashhad, Iran, September 2002)
○ *On the positive integral solutions of the third degree Diophantine equation* (with T. Hessami Pilehrood) and *On some Diophantine inequalities involving the hypergeometric functions* (with T. Hessami Pilehrood). The 34-th Iranian Mathematics Conference (Shahrood, Iran, September 2003)
○ *On Mordell diophantine equation* (with T. Hessami Pilehrood). Sixth International conference "Algebra and Number Theory: Modern Problems and Applications" dedicated to 100-year anniversary of N. G. Chudakov (Saratov State University, Saratov, Russia, September 2004).
○ *Conditional irrationality measures for generalized Euler's constant* (with T. Hessami Pilehrood) and *On irrationality of sums of zeta values* (with T. Hessami Pilehrood). XXIV Journees Arithmetiques. (Marseille, France, 4-8 July 2005).
○ *Approximation formulas for logarithms of some infinite products* (with T. Hessami Pilehrood) and *On irrationality of certain numbers that contain values of the di- and trilogarithm* (with T. Hessami Pilehrood and W. Zudilin). International Congress of Mathematicians, ICM 2006. (Madrid, Spain, 22-30 August 2006).

Honors and Awards

● Research Fellowship, Institute for Studies in Theoretical Physics and Mathematics, Tehran, Iran (2002)
● Research Fellowship, Research Institute for Fundamental Sciences, Tabriz, Iran (2003)
● Research Fellowship, Institute for Studies in Theoretical Physics and Mathematics, Tehran, Iran (2004-2005, 2005-2006, 2006-2007)
● Honorary Researcher of Chahar Mahal & Bakhtiary Province of Iran (2006).

Publications

1. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *Apéry-like recursion and continued fraction for $\pi \coth \pi$,* submitted for publication.

2. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *Infinite sums as linear combinations of polygamma functions,* submitted for publication.

3. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *On conditional irrationality measures for values of the digamma function,* J. Number Theory, **123**(2007), no.1, p.241-253.

4. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *Arithmetical properties of some series with logarithmic coefficients,* Math. Zeitschrift, **255** (2007), no.1, p.117-131.

5. Kh. Hessami Pilehrood, T. Hessami Pilehrood, W. Zudilin. *Irrationality of certain numbers that contain values of the di- and trilogarithm,* Math. Zeitschrift, **254** (2006), no.2, p.299-313.

6. T. Hessami Pilehrood, Kh. Hessami Pilehrood. *On irrationality of the sums of zeta values,* Mat. Zametki, **79** (2006), no.4, p.607-618; English transl.: Math. Notes., **79** (2006), no.4, p.561-571.

7. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *On sums of two rational cubes,* Indian J. Pure Appl. Math. **36** (2005), no.12, p.707-717.

8. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *On the diophantine equation $x^2 + 3 = py^n$,* Indian J. Pure Appl. Math. **36** (2005), no.8, p.431-439.

9. T. Hessami Pilehrood, Kh. Hessami Pilehrood. *Lower bounds for linear forms in values of polylogarithms,* Mat. Zametki, 2005, V.77, no. 4, p.623-629; English transl.: Math. Notes, 2005, V.77, no. 4, p.573-579.

10. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *On the diophantine equation $x^2 + 3 = py^{p-1}$,* (in Russian), Chebyshevskii Sbornik, 2004, V.5, no. 4 (12), p.118-124.

11. Kh. Hessami Pilehrood, T. Hessami Pilehrood. *On Mordell diophantine equation* (in Russian), Chebyshevskii sbornik, 2004, V.5, no. 2 (10), p.167-171.

12. T. Hessami Pilehrood, Kh. Hessami Pilehrood. *Criteria for irrationality of generalized Euler's constant,* J. Number Theory, 2004, V.108, no. 1, p.169-185.

13. Kh. Hessami Pilehrood. *On the Diophantine equation $X^3 + Y^3 = PQZ^3$*, Moscow University Math. Bull. Ser. 1, 2001, no. 1, pp.19-22.

14. Kh. Hessami Pilehrood. *On the Diophantine equation $ax^3 + bx^2 + cx + dy + e = fxyz$*, Moscow University Math. Bull. Ser. 1, 2000, no. 1, pp. 50-51.

15. M. Z. Garaev, Kh. Hessami Pilehrood. *A note on the system of Pell's equations*, Fundam. Prikl. Mat. **5** (1999), no. 3, pp. 927-930.
    http://www.math.msu.su/~fpm/rus/99/993/99320h.htm

16. Kh. Hessami Pilehrood. *On the Diophantine equation $x^2 - Ny^2 = -1$*, Moscow University Math. Bull. Ser. 1, no. 2, pp. 65-67, 1999.

17. In the book of Gashkov S. B., Chubarikov V. N. "*Arithmetica. Algoritmy. Slozhnost' vychislenii*" ("*Arithmetics. Algorithms. Computing Complexity*"), Moscow: Vysshaya Shkola, 2000, problems 10.55, 10.57, 10.58, 10.60 and their solutions (pp.130-136) are author's.