

Miodrag Cristian Iovanov

Curent position

"University Assistant", Department of Mathematics - Algebra, University of Bucharest and teaching assistant and resarch fellowship, SUNY at Buffalo

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107 Springville Ave. #1
14226 Buffalo, NY, USA

Studies

2003 - 2006 PhD program, University of Bucharest; \\
Ph.D Disertation Thesis $\{bf (Co)Frobenius Algebras, Coalgeras and Functors$, July 2006

2001 - 2003 Master in "Algebra and Number Theory", Fac. Mathematics, University of Bucharest; Master GPA: 10.0 (grading scale 1-10)
June 2003 - Master Disertation thesis: "Semiperfectness for Rings and Corings"; -grade 10.

1997 - 2001 - University of Bucharest, Mathematics. Average GPA: 10.0 (grading scale 1-10).
June 2001 - Graduation thesis: "Finite Dimensional Hopf Algebras"; -grade 10.

1993 - 1997 - "Informatics High-school", Petrosani-HD/ROMANIA.

Visiting positions

February - March 2004 - research visiting, Univ. Anwverpen, Belgium. (Romanian Flemish Cooperation Agreement Grant)

March - May 2003 - research visiting, Free Univ. Brussels, Belgium. (Romanian Flemish Cooperation Agreement Grant)

April - June 2002 - research visiting, Univ. Anwverpen, Belgium .\\%(Romanian Flemish Cooperation Agreement Grant)

Research Grants

2003-2006: PhD Grant CNCSIS BD/86, by CNCSIS (national council for scientific and academic research) – Romania

2005-2006: member of the bilateral Flemish-Romanian Grant *New Techniques in Hopf Algebra Theory and Graded Ring Theory* of University Antwerpen (BELGIUM)/Free University Brussels (BELGIUM)/University of Bucharest (ROMANIA)/Babes-Bolyai University, Cluj Napoca (ROMANIA)

2002-2004: member of the bilateral Grant of the Flemish and Romanian governments *Hopf algebras in Algebra, Geometry, Topology and Physics*, University Antwerpen (BELGIUM)/Free University Brussels (BELGIUM)/University of Bucharest (ROMANIA)

Undergraduate Prizes and awards

July 2001 – IMC (International Mathematics Olympiad for College Students, www.imc-math.org) - Prague, Czech Republic - **Second Prize**

July 2000 - IMC - London, **Second Prize**

1997 – NMO (National Mathematics Olympiad for high-school students) - **First Prize**; part of the extended Romanian math olympic team for IMO (International Mathematics Olympiad) and BMO (Balcanic Mathematics Olympiad)

1996 - NMO - **Second Prize**; part of the extended Romanian math olympic team for IMO and BMO

1995 - NMO - **Second Prize**

1994 - NMO - **First Prize**

Teaching Experience

Teaching Assistant (2002-2004) and "University Assistant" (2004-2007), University of Bucharest, Romania; courses and recitations in Abstract Algebra, Number Theory, Calculus, Algebra Complements (Galois Theory, Linear Algebra)

Teaching Assistant, State University of New York (Buffalo), (2006-2007)

Research Interests

Noncommutative algebra: algebras and coalgebras, (co)representation theory, Hopf algebras, corings; Category Theory; Topology and Algebraic Topology

Research Papers

[1] *Characterization of PF rings by the finite topology on duals of R modules*, An. Univ. Bucuresti, Mat., Anul LII, Nr.2 (2003), pp. 187-197.

[2] (with S. Caenepeel) *Comodules over semiperfect corings*. Proceedings of the International Conference on Mathematics and its Applications (ICMA 2004), 135--160, Kuwait Univ. Dep. Math. Comput. Sci., Kuwait, 2005; <http://homepages.vub.ac.be/~scaenepe/Miudrag8.pdf>.

[3] *Co-Frobenius coalgebras*, J. Algebra **303**, no. 1 (2006), 146--153.

[4] *When is the product isomorphic to the coproduct?*, Comm. Algebra **34**, no. 11-12 (2006), 4551 - 4562.

[5] *The Splitting Problem for Coalgebras: A Direct Approach*, Appl. Cat. Struct. **14**, no. 5-6 (2006), 599-604.

[6] *Frobenius Extensions of Corings*, accepted for publication/to appear, Comm. Algebra; (21p). Preprint available at ArXiv.org:math.QA/0612477.

[7] (with J. Vercruysse) *Cofrobenius corings and related functors*, accepted for publication, J. Pure Appl. Algebra; (38p). Preprint available at ArXiv.org:math.RA/0610853

[8] *When does the rational torsion split off for finitely generated modules*, submitted to publication; (25p). Partial preprint available at ArXiv.org:math.RA/0612478.

[9] (with C. Nastasescu) *The Dickson Subcategory Splitting Conjecture for Pseudocompact Algebras*, submitted to publication; (15p).

[10] *Integrals for coalgebras*, in preparation.

[11] *Representation theoretic approach to fundamental results of Hopf algebras*, in preparation.