

# Curriculum Vitae

Florin Panaite

## Personal Information:

Name: Panaite; First name: Florin

Year and place of birth: 1970, Bucharest, Romania; Nationality: Romanian

**Professional address:** Institute of Mathematics of the Romanian Academy, PO-Box 1-764, RO-014700, Bucharest, Romania

**e-mail:** Florin.Panaite@imar.ro

**Academic rank:** Scientific Researcher I (CS I), Institute of Mathematics of the Romanian Academy (IMAR)

**Languages:** Romanian–mother tongue; English–fluent; French–good; Spanish–reading

## Educational history:

- High School "Sfantul Sava", Bucharest, 1985-1989
- University Degree in Mathematics, University of Bucharest, 1995
- Master of Science in Algebra, University of Bucharest, 1996
- PhD in Mathematics, University of Bucharest, November 1999, advisor Prof. Dr. Constantin Năstăsescu, with the thesis "Algebras and coalgebras with applications to quantum groups"

**Awards:** The prize "Gheorghe Lazăr" of the Romanian Academy for 1999 (awarded in 2001), for contributions to the field of Hopf algebras

**Research fields:** Hopf algebras, quantum groups

## Research summary:

My field of research is the theory of Hopf algebras and quantum groups, including extensions of these concepts (quasi-Hopf algebras, bialgebroids, quantum groupoids, Hom-bialgebras etc). In my research I have treated various aspects of the theory, such as: quasitriangular structures, ribbon and charmed elements, monoidal, braided and ribbon categories, links with braid groups, Clifford algebras, octonions and Cayley-Dickson algebras, various kinds of crossed products (smash products and biproducts, double crossed products, diagonal crossed products, L-R-smash products, twisted tensor products of algebras, Brzezinski crossed products), twistings of algebras and Rota-Baxter type operators, integrals and Maschke-type theorems, quantum traces and dimensions, actions and coactions, cleft extensions, the study of some classes of pointed Hopf algebras, (anti) Yetter-Drinfeld modules and Hopf (bi) modules, the quantum Yang-Baxter equation and the pentagonal equation, vertex groups, the Drinfeld double and the Heisenberg double, combinatorial and homological aspects, extensions, deformations etc.

**Research visits abroad:**

- 1996: 3 months at University of Antwerp, UIA, Belgium, with a TEMPUS grant
- 1998: 10 months at University of Antwerp, UIA, Belgium, in the framework of the project “Hopf algebras and (co) Galois theory” supported by the Romanian and Flemish governments
- 2001: 1 month at Ecole Polytechnique Federale de Lausanne, Switzerland, supported by the programme SCOPES
- 2003: 2 months at University of Antwerp, Belgium, supported by the programmes EURROM-MAT of IMAR and “Hopf algebras in algebra, topology, geometry and physics” financed by the Flemish and Romanian Ministries of Research
- 2004: 6 months at University of Almeria, Spain, supported by a NATO postdoctoral fellowship offered by the Spanish Ministry of Science and Technology
- 2005-2006: 9 months at University of Antwerp, Belgium, supported by a Marie Curie postdoctoral fellowship within the RTN programme LIEGRITS and by the bilateral project “New techniques in Hopf algebras and graded ring theory” financed by the Romanian and Flemish governments.
- 2006: 4 months at the Centre for Mathematics of the University of Coimbra (CMUC), Portugal, supported by a postdoctoral fellowship offered by CMUC.
- 2007: 2 weeks at University of Granada, Spain, supported by a grant from the Spanish MEC.
- 2007–2008: 12 months at University of Antwerp, Belgium, supported by a postdoctoral fellowship offered by FWO (Flemish Foundation for Scientific Research).
- 2011: 6 weeks at the Centre for Mathematics of the University of Coimbra, Portugal, supported by the CNCSIS project “Hopf algebras, cyclic homology and monoidal categories”, contract nr. 560/2009, CNCSIS code *ID\_69*.
- 2012: 1 month at University of Hasselt, Belgium, supported by the CNCS project “Hopf algebras in category theory, representation theory and combinatorics”, contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.
- 2012: 2 weeks at University of Antwerp, Belgium, supported by the CNCS project “Hopf algebras in category theory, representation theory and combinatorics”, contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.
- 2012: 1 week at University of Almeria, Spain, supported by the CNCS project “Hopf algebras in category theory, representation theory and combinatorics”, contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.
- 2013: 1 month at University of Antwerp, Belgium, supported by a grant from FWO (Flemish Foundation for Scientific Research) within the research project “Equivariant Brauer groups and Galois deformations”
- 2013: 1 month at Université de Haute Alsace (UHA), Mulhouse, France, supported by the CNCS project “Hopf algebras in category theory, representation theory and combinatorics”, contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.
- 2013: 1 week at United Arab Emirates University, Al Ain (UAE), supported by UAEU and by the CNCS project “Hopf algebras in category theory, representation theory and combinatorics”,

contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.

- 2014: 1 month at Université de Haute Alsace (UHA), Mulhouse, France, supported by a grant offered by UHA.
- 2014: 1 month at Erwin Schrodinger Institute, Vienna, Austria, supported by the CNCS project "Hopf algebras in category theory, representation theory and combinatorics", contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.
- 2014: 1 month at University of Ferrara, Italy, supported by a grant from Istituto Nazionale di Alta Matematica (INdAM).
- 2014: 1 month at University of Antwerp, Belgium, supported by a grant from FWO (Flemish Foundation for Scientific Research) within the research project "Equivariant Brauer groups and Galois deformations"
- 2015: 1 month at University of Antwerp, Belgium, supported by a grant from FWO (Flemish Foundation for Scientific Research) within the research project "Equivariant Brauer groups and Galois deformations"
- 2015: 10 days at University of Ferrara, Italy, supported by the CNCS project "Hopf algebras in category theory, representation theory and combinatorics", contract nr. 253/2011, project nr. PN-II-ID-PCE-2011-3-0635.
- 2017: 1 month at Université de Haute Alsace (UHA), Mulhouse, France, supported by a grant offered by UHA.
- 2017: 1 month at University of Ferrara, Italy, supported by a grant from Istituto Nazionale di Alta Matematica (INdAM).

#### **Talks at Conferences:**

- "Hopf Algebras and Quantum Groups", Brussels (Belgium), June 1998
- "Operator Algebras and Mathematical Physics", Constanța (Romania), July 2001
- "Hopf Algebras in Noncommutative Geometry and Physics", Brussels (Belgium), May 2002
- "Nonassociative Algebras and Related Topics", Coimbra (Portugal), July 2011
- "Algebra, Geometry, Mathematical Physics VII", Mulhouse (France), October 2011
- "Rings, Categories and Hopf Algebras" (dedicated to the 70<sup>th</sup> birthday of Prof. Constantin Năstăsescu), Bucharest (Romania), May 2013
- Anniversary Conference: "Faculty of Sciences-150 years", Bucharest (Romania), August 2013
- The Eighth Congress of Romanian Mathematicians, Iasi (Romania), June 2015
- "Ferrara Algebra Workshop. A conference in honour of Prof. Claudia Menini", Ferrara (Italy), September 2015
- "The First Romanian-Turkish Mathematical Colloquium", Constanta (Romania), October 2015
- "Algebra and Group Theory. A conference in honour of Prof. Otto Kegel", Mulhouse (France), October 2015
- "Third Euro-Maghreb Conference in Algebra, Geometry and Lie Theory", Monastir (Tunisia), March 2016

- "Brauer groups, Hopf algebras and monoidal categories. A conference in honour of Prof. Stefaan Caenepeel on the occasion of his 60th birthday", Turin (Italy), May 2016
- "Rencontre Poisson", La Rochelle (France), June 2018

**Talks at Seminars, Workshops, etc:**

- Antwerp Algebra Seminar, University of Antwerp, Belgium, May 1998, May 2006, April 2013
- SANO (Seminario de Algebra No Conmutativa), University of Granada, Spain, April 2004, November 2007
- Workshop "New techniques in Hopf algebras and graded ring theory", Vrije Universiteit Brussels, Belgium, September 2005
- Mini-course (5 hours) "General twisted algebras" during the Socrates Intensive Program "Geometric and Algebraic Methods with Applications in Physics", University of Antwerp, Belgium, September 2007
- Seminar Hopf-Galois, Hasselt University, Belgium, February 2008
- SAAM (Seminario de Algebra y Analisis Matematico), University of Almeria, Spain, November 2012.
- Seminar of the Department of Mathematics, United Arab Emirates University, Al Ain (UAE), November 2013
- Séminaire "Georges Reeb" (Algebre et Geometrie Differentielle), Université de Haute Alsace (UHA), Mulhouse, France, March 2014, June 2017.
- Algebra Seminar, University of Ferrara, Italy, September 2014, September 2017
- Algebra Seminar, University of Padova, Italy, October 2014, October 2017
- Workshop "Hom-Algebras", Monastir, Tunisia, October 2014

**Other Conferences, Workshops and Summer Schools attended:**

- International Conference on Representation Theory of Groups, Algebras and Orders, Constanța (Romania), September 1995
- AMS-BeNeLux Congress, Antwerp, May 1996
- Summer School on Representation Theory of Algebras, Finite and Reductive Groups, Cluj-Napoca (Romania), September 1997
- TMR Workshop on Noncommutative Algebra, Antwerp, June 1998
- TMR Workshop on Differential Operators and Quantum Algebras, Reims, November 1998
- Summer School and Workshop on Decomposition Numbers and Character Formulae for Lie Algebras, Algebraic Groups and Quantum Groups, Blaubeuren (Germany), May 1999
- Euroconference and Workshop on Algebra and Representation Theory, Constanța (Romania), August 2000
- Summer School on Geometry of Quiver Representations and Preprojective Algebras, Isle of Thorns (Sussex, UK), September 2000
- "Interactions between Algebra, Geometry, Topology. A conference in honour of Prof. Vasile

Brinzanescu”, Bucharest (Romania), May 2015

- ”Complex projective geometry. A conference in honour of Prof. Paltin Ionescu”, Bucharest (Romania), July 2016
- ”Algebra Workshop”, in honour of Prof. Mirela Stefanescu on the occasion of her 75<sup>th</sup> birthday, December 2016
- ”Topology and Geometry: A conference in memory of Ștefan Papadima”, May 2018.