

# Francesco Baldassarri

## Curriculum Vitae

December 10, 2012

### 1 Vita

Born in Venezia, Italy, February 8, 1951.

Lauréat de l'Alliance Française 1966.

Laurea *summa cum laude* in Mathematics from the University of Padova 3.4.1974, with a thesis on *Interpretazione funzionale di certe iperalgebre e dei loro anelli di bivettori di Witt*, under the direction of Iacopo Barsotti.

Military service: June 1974 - August 1975.

Married with Mariasilvia Mancini, 2 children: Giovanni (18/10/94) and Ilaria (20/1/98).

Home adress: Via T. Folengo 10, I-35141 PADOVA, ITALY.

Work adress: Dipartimento di Matematica Pura Applicata, Università di Padova, Via Trieste 63, 35121 PADOVA, ITALY

### 2 Academic career.

*Visiting Fellow* at the Mathematics Department of Princeton University for two years, from 9.1.75 to 8.31.77.

*Professore Incaricato* of Geometry at the University of Ferrara in the year 1977/78;

*Assistant Professor* of Geometry at the University of Padova from 1.1.1979 to 11.1.1980.

*Visiting Research Mathematician* in Princeton, during the Fall term of 1978-79.

*Full Professor of Geometry* at the University of Trieste, from 11.1.1980 to 11.1.1982.

*Visiting Fellow* and *Visiting Research Mathematician* at Princeton University during the Fall term of 1981-82.

*Full Professor of Geometry* at the University of Padova from 11.1.1982 to the present date.

*Dean of Graduate Studies* in Pure Mathematics at the University of Padova for 5 years 1990-1994;

### 3 Academic responsibilities.

*Scientist in Charge* for the Italian branch of the European Union Research HCM Network *p*-adic Methods in Arithmetic Algebraic Geometry" (Jan. 1, 1994-Dec. 31, 1997), of the TMR Network Arithmetic Algebraic Geometry" (Sept. 1, 1996 to Sept. 30, 2000), and then of the Improving Network Arithmetic Algebraic Geometry" (Oct. 1, 2000-);

*Coordinator* for Padova of the Mundus Master Program ALGANT (Algebra, Geometry and Number Theory) <http://www.math.u-bordeaux.fr/ALGANT/> a consortium connecting the universities of Bordeaux, Leiden, Padova, Milan, Paris-Sud, Montreal.

*Managing Editor* of the journal *Rendiconti del Seminario Matematico dell'Università di Padova* <http://rendiconti.math.unipd.it/> from January 1993 to the present date.  
Member of the *Istituto Veneto di Scienze Lettere ed Arti* (Venice).

## 4 Scientific collaborations.

Professeur Associé at the University of Rennes during the Spring term of 1980, invited by Pierre Berthelot.

Professeur Associé at Paris 6, April 1983, invited by Daniel Bertrand.

Professeur Associé at the École Polytechnique, April 1985, invited by François Loeser.

Invited speaker at the Taniguchi Symposium on Special Differential Equations held at Katata, August 1991; Professeur Associé at Paris 13, June 1993, invited by Daniel Barsky.

Visiting Lecturer at Oklahoma State University at Stillwater, Sept. 1993.

Professeur Associé at Paris 6, November 1995, invited by Gilles Christol.

Fellow of the Japan Society for the Promotion of Science, April 1996.

Visiting Lecturer at Oklahoma State University at Stillwater, Sept. 1997.

Professeur Associé at Paris 13, June 1998.

Professeur associé Université de Nice, April 2000.

Professeur Associé at the E.N.S. Paris, April-May, 2004

Professeur Associé at the E.N.S. Paris, April-May, 2008

Member of the SEDIGA project, <http://www.math.polytechnique.fr/SEDIGA/sediga.htm>, on *Singularités d'Équations Différentielles en Géométrie Algébrique*, of the french ANR, coordinated by Claude Sabbah.

Visiteur IHÉS Feb. 15-May 15, 2012

Ordway Professor University of Twin Cities at Minneapolis, May 2013.

In numerous visits abroad, has been invited by several research Institutions such as I.A.S. and University in Princeton, I.H.P., Paris 6, Paris 13, École Polytechnique, and IH—ES in Paris, Luminy, Oberwolfach, RIMS of Kyoto, and the universities of: Münster, Bochum, Rennes, Strasbourg, Toulouse, Madrid, Barcelona, Minneapolis, Stillwater, Corvallis, Nijmegen, Groningen, Tokyo, Chiba, Kobe, Cortona, Milano, Bologna, Pisa, Trento, Naples, Lisbon.

## 5 Some recent talks (2009-2012)

1. *Radii of  $p$ -adic convergence of connections and non-archimedean spectral norms of differential operators.* *J.-F. Boutot Conference*, Strasbourg, 07/01/2009-09/01/2009
2. *Irregularity and radius of  $x$ -adic convergence.* *Z. Mebkhout Conference*, Sevilla, 25/01/2009-30/01/2009
3. *Semistable models of  $p$ -adic curves and radii of convergence.* *J. Fresnel Conference*, Bordeaux, 19/02/2009-25/02/2009
4. *Continuity of the radius of convergence of a connection on a  $p$ -adic curve.*, Caen, 08/06/2009-14/06/2009
5. *The convergence polygon of a connection on a  $p$ -adic curve*, during the *Galois Trimester*, Institut Henri Poincaré, Paris, 04/01/2010 - 27/03/2010
6. *On the controlling graph of a  $p$ -adic connection on a curve*, Oxford, 14/03/2010-20/03/2010

7. *Bornological Spaces*, Strasbourg 07/11/2009-11/11/2010 Colloquium *Berkovich spaces and  $p$ -adic differential equations*.
8. *Théorie formelle des connexions méromorphes complexes et espaces de Berkovich*, Colloquium *Travaux de Kedlaya et Mochizuki sur la structure formelle des connexions méromorphes* at CIRM - Luminy (France) 29-31 March 2011.
9. *Finiteness of de Rham cohomology for dagger curves and Grothendieck-Ogg-Shafarevich formula*, Münster 26 May, 2011,
10. UCL London 27-29 June 2011 Colloquium *Frontiers of Nevanlinna Theory*.  
Title of the talk: *Finiteness of De Rham cohomology with general coefficients for  $p$ -adic dagger curves and Hurwitz formulas. Revealing hidden ramification*.
11. *Kedlaya's strategy in the proof of Sabbah's conjecture* at CIRM - Luminy (France) 29-31 March 2011.
12. *Polygon of convergence of connections on  $p$ -adic curves and determination of the geometric ramification locus of a finite morphism*. Luminy CIRM 12-16 September 2011 *Conference in honor of Jan Denef*.  
Title of the talk:
13. *Cohomologie de De Rham des courbes dague et formules de Hurwitz*. Rennes, March 8, 2012
14. *Finitude de la cohomologie de De Rham  $p$ -adique et formules de Euler-Poincaré: À la recherche de la ramification et de la monodromie cachées* Strasbourg, April 18, 2012
15. *Cohomologie de De Rham de modules à connexion sur des courbes non-archimédiennes*. IHES, Bures, May 3, 2012
16. *Irregular singularities in dimension 2, Berkovich curves, and differential operators of infinite order.*, Luminy, June 4, 2012.
17. *Rational points on curves: a  $p$ -adic and computational perspective*, Oxford, Sept. 24-28, 2012;
18. *Non-Archimedean Analytic Geometry* , Oberwolfach, November 4-10, 2012.
19. *Galois representations and pencils of Calabi-Yau motives* , Max Planck Institute in Bonn, December 15-21, 2012.

## 6 Teaching

Has been teaching courses of Geometry and Number Theory at various level, and specialistic seminars on  $p$ -adic Analysis, differential equations, and cohomology of algebraic, complex-analytic and rigid-analytic varieties.

Among his former PhD students: Bruno Chiarellotto, Francesca Tovena, Maurizio Cailotto, Luisa Fiorot, Valentina di Proietto. Is now directing two PhD and one Mundus Master students: Federico Bambozzi on *Bornological spaces*, Velibor Bojkovic on *Differential equations on  $p$ -adic curves and  $p$ -adic representations of the tempered fundamental group* and Mert Tomruk on *Complex dagger analytic spaces*.

## 7 Conferences organized.

1. *International Conference on p-adic Analysis*, Trento, Italy, 5.28.1989 - 6.3.1989.
2. *Instructional Conference on p-adic methods in arithmetic algebraic geometry*", Levico Terme, Italy, 21 May - 3 June, 1995.
3. *International Conference on Arithmetic Algebraic Geometry*, Venice, Italy, Sept.13-Sept 18, 1999.
4. *Dwork Trimester in Italy*, held at Padova, Varenna and Bressanone, May 20 to July 7, 2001,
5. *Cohomological Week in Rennes* celebrating the 60-th anniversary of P. Berthelot.
6. Colloquium *Travaux de Kedlaya et Mochizuki sur la structure formelle des connexions méromorphes* at CIRM - Luminy (France) 29-31 March 2011.