

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

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GREGORIO CHINNI CURRICULUM VITAE

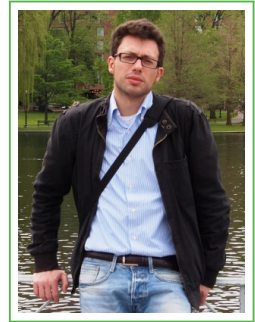
INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

COGNOME	CHINNI
NOME	GREGORO
DATA DI NASCITA	28 / 11/ 1980

Gregorio Chinni

Curriculum vitae

✉ gregorio.chinni@gmail.com
Citizenship: Italian
Date of birth: 28/11/1980
Status: married



Education

- 2008 **PhD in Mathematics**, *Department of Mathematics University of Bologna*, Bologna, Italy.
- 01/10/2004 **Bachelors degree in Mathematics**, *Department of Mathematics University of Bologna*, Bologna, Italy.

Employment:

- 2017-2019 **Principal Investigator**, *University of Vienna, FWF Lise-Meitner Program fellowship*, Vienna, Austria.
Research project: "Regularity of solutions for PDE and perturbation problem";
Supervisor: Prof. Bernahard Lamel.
- 2013-2015 **Principal Investigator**, *University of São Paulo, USP, Fundação de Amparo à Pesquisa do Estado de São Paulo (FAPESP) fellowship*, São Paulo, Brazil.
Research project: "Regularity of solutions for sums of squares of real and complex vector fields";
Supervisor: Prof. Paulo Domingos Cordaro.
- 2009-2012 **Postdoctoral Fellow**, *University of Bologna, UNIBO*, Bologna, Italy.
Research project: "Analytic Hypoellipticity for sums of squares of vector fields";
Supervisor: Prof. Antonio Bove.
- Jun-Dec 2008 **Scholarships**, *University of Bologna*, Bologna, Italy.

PhD thesis

- Title *Analytic and Gevrey (micro-)hypoellipticity for sums of squares: an FBI approach*,
Supervisors Prof. Antonio Bove
- Description The thesis has two parts. The first part is an introduction to some topics in the subject and to the techniques used. The second part contains: a theorem of minimal microlocal Gevrey regularity for operators that are sums of squares of vector fields with real analytic coefficients, microlocal version of a theorem of Derridj and Zuily (Journal de Mathématiques Pures et Appliquées, 52(1973), 309-336); a new proof of both analytic and C^∞ - hypoellipticity of Kohn's operator (J. J. Kohn, M. Derridj and D. S. Tartakoff Ann. of Math. 162 (2005), 943-986) using FBI techniques , the same proof allows to obtain both kind of hypoellipticity at the same time.

Experiences

Teaching

- Teaching assistant, a.a. 2017/2018. Courses: Analysis II, Faculty of Physics, Calculus I, Faculty of Computer Science and Computer Science for the Management, Calculus II, School of Engineering, University of Bologna.
- Teaching assistant, a.a. 2016/2017. Courses: Analysis II, Faculty of Physics, Calculus I/II, Faculty of Computer Science and Computer Science for the Management, Calculus II, School of Engineering, University of Bologna.
- Teaching assistant, a.a. 2011/2012. Courses: Calculus I/II, School of Engineering, University of Bologna.
- “Crash course in mathematics”, September 2008, Department of Economics, University of Bologna.
- Teaching assistant for the years 2007/2008-2009/2010, both in Mathematics and Economics Department, University of Bologna.

Talks and Poster Sections:

- “On the sharp Gevrey regularity for a generalization of the Métivier Operator”(poster section) 10th Workshop on GEOMETRIC ANALYSIS OF PDEs and SEVERAL COMPLEX VARIABLES, Serra Negra Brazil, august 05-09, 2019;
- “On the sharp Gevrey regularity for a generalization of the Métivier Operator”(talk), University of São Paulo, IME-USP, 01/08/2019;
- “On the sharp Gevrey regularity for a generalization of the Métivier Operator”(talk), Third Central European Complex Analysis Meeting, 12-14/04/2019;
- “Analytic and Gevrey Hypoellipticity for Perturbed Sums of Squares Operators” (talk), University of Vienna, 09/01/2018;
- “Analytic and Gevrey Hypoellipticity for Perturbed Sums of Squares Operators” (poster section), 9th Workshop on GEOMETRIC ANALYSIS OF PDEs and SEVERAL COMPLEX VARIABLES, Serra Negra Brazil, august 07-11, 2017;
- “The Green Operator of a Globally Analytic Hypo-elliptic Operator on the Torus and Applications”, Seminario di Analisi Matematica Bruno Pini, Bologna University, 19 November 2015;
- “The Green Operator of a Globally Analytic Hypo-elliptic Operator on the Torus and Applications”(poster section), 8th Workshop on GEOMETRIC ANALYSIS OF PDEs and SEVERAL COMPLEX VARIABLES, Serra Negra Brazil, august 03-07, 2015;
- “Perturbation of Globally Gevrey Hypo-elliptic Operators” (talk), Special Session on Recent Progress in Harmonic Analysis and Several Complex Variables I, Fall Western Sectional Meeting San Francisco State University, San Francisco, CA, October 25-26, 2014;
- “On the Hypo-ellipticity of Kohn’s Operator (an alternative Proof)” (talk), São Paulo, IME-USP, november 2013;
- “Hypoellipticity in the sense of germs for Kohn’s Operator ” (short talk), CR Geometry and PDE’s - V In honor of J.J. Kohn in his 80th birthday, Levico Terme (Trento Italy), June 5-8, 2012;
- “On the hypoellipticity of Kohn’s operator and one of its variations”, Temple University, april 2012.

Study abroad:

- 16/07/2019-04/08/2019, University of São Paulo (Invited Prof. P.D. Cordaro);
- 01/03/2012-30/04/2012, Temple University (advisor Prof. S. Berhanu).
- 13-17/09/2010, Second Summer School on Analysis, “Spectral Theory and PDE”, Leibniz Univer-

sity Hannover, Germany.

Publications and Preprints

- *Minimal Microlocal Gevrey Regularity for "Sums of Squares"*, Int. Math. Res. Notices, **12**, 2275-2302, 2009 (with P. Albano, A. Bove)
- *A Proof of Kohn's Operator Hypoellipticity via FBI*, Revista Matemática Iberoamericana, **27** (2011), 585-604.
- *Germ Hypoellipticity and loss of derivative*, Proc. Amer. Math. Soc. **140** (2012), 2417-2427.
- *Gevrey Regularity for a generalization of the Oleĭnik-Radkevič Operator*, Journal of Mathematical Analysis and Applications, **415**(2014), 948-962.
- *Lower order perturbation and global analytic vectors for a class of globally analytic hypoelliptic operators*, Proc. Amer. Math. Soc. **144**, No. 12 (2016), 5159–5170 (with N. Braun Rodrigues, P. D. Cordaro and M. R. Jahnke.)
- *On global analytic and Gevrey hypoellipticity on the torus and the Métivier inequality*. Comm. in Partial Differential Equations **42**, No. 1 (2017), 121–141 (with P.D. Cordaro.)
- *Analytic and Gevrey hypoellipticity for perturbed sums of squares operators*, Annali di Matematica Pura ed Applicata, **197**, Issue 4 (2018), 1201–1214 (with A. Bove)
- *On the Gevrey regularity for sums of squares of vector fields, study of some models*, Journal of Differential Equations, **265**, no. 3, (2018), 906–920.
- *(Semi-)Global analytic hypoellipticity for a class of "sum of squares" which fail to be locally analytic hypoelliptic*, Accepted for publication in Proceedings of the American Mathematical Society.
- *On the sharp Gevrey regularity for a generalization of the Métivier Operator*, Preprint, Submitted.

Languages

Italian **native speaker**
English **good command / good working knowledge**
Portuguese **good command / good working knowledge**

Research Interests

Analytic and Gevrey Hypoellipticity for sums of squares operators with real analytic coefficients which satisfy the Hörmander condition. Hypoellipticity for sums of squares of complex analytic vector fields. Global regularity for sums of squares defined on the torus and on product of compact Lie group by a compact manifold. Local and global perturbation problem for analytic linear partial differential operators i.e. stability of the regularity of the solutions after pseudo-differential operator lower order perturbations. Gevrey regularity of analytic vectors for linear partial differential operators with analytic and Gevrey coefficients. Microlocal Gevrey regularity for non-linear first order partial differential equation.

Grants and Awards:

- 2017 **FWF-Lise Meitner-Programme**, project no. M2324-N35;, Austrian Research Foundation, (FWF).
- 2013 **Fundação de Amparo à Pesquisa do Estado de São Paulo**, 168 083 R\$, São Paulo Research Foundation, (FAPESP).

Community service:

Reviewer for Mathematical Reviews(MR), Referee for Journal of Fourier Analysis and Applications, Journal of Mathematical Analysis and Applications.

Declarations given in the present curriculum must be considered released according to art. 46 and 47 of DPR n. 445/2000. The present curriculum does not contain confidential and legal information according to art. 4, paragraph 1, points d) and e) of D.Lgs. 30.06.2003 n. 196.

Date: March 4, 2020

Luogo: BOLOGNA