



### Personal Information

Surname(s) / First name(s)  
 Address(es)  
 Telephone(s)  
 Email(s)  
 Nationality(-ies)  
 Date of birth  
 Gender

**FERRARI Simone**

### Occupational field

**Functional analysis, Infinite dimensional analysis, convex analysis, measure theory, elliptic and parabolic partial differential equations.**

### Education and training

|                            |   |
|----------------------------|---|
| October 2016 – Present     | Post doc student in Mathematics<br>Università del Salento (Lecce, ITALY)<br>Winner of the Post Doc "Equazioni ellittiche e paraboliche con coefficienti illimitati" ("Elliptic and parabolic equations with unbounded coefficients"), SSD MAT/05 "Analisi Matematica" of Università del Salento.  |
| April 2014 – March 2016    | Post doc student in Mathematics<br>Università degli studi di Parma (Parma, ITALY)<br>Winner of the Post Doc "Tecniche per equazioni di Kolmogorov in dimensione finita e infinita, e problemi connessi" ("Techniques for Kolmogorov equations in finite and infinite dimension, and related problems"), SSD MAT/05 "Analisi Matematica" of Università degli studi di Parma. |
| January 2010 – July 2013   | Ph. D. student in Mathematics<br>Università degli studi di Milano (Milano, ITALY). Thesis defence 02-07-2013<br>Thesis title: "Localization techniques for renormings"<br>Advisor: Prof. José Orihuela (Universidad de Murcia)<br>Coadvisor: Prof. Maitia Faja (Universidad de Murcia)<br>Winner of a Scholarship by the Università degli studi di Milano.                  |
| September 2007 – July 2009 | MS in Mathematics<br>Università degli studi di Milano (Milano, ITALY). Thesis defence 21-07-2009<br>Thesis title: "Riflessività e spazi universali" ("Reflexivity and universal spaces")<br>Advisor: Prof. Clemente Zanco (Università degli studi di Milano)  |
| September 2004 – July 2007 | BS in Mathematics<br>Università degli studi di Milano (Milano, ITALY). Thesis defence 18-07-2007<br>Thesis title: "Aspetti geometrici dei sistemi di disuguaglianze lineari" ("Geometrical aspects of systems of linear inequalities")<br>Advisor: Prof. Clemente Zanco (Università degli studi di Milano)  |

### Invited conferences and talks

|                                   |   |
|-----------------------------------|---|
| 27 August 2017 – 2 September 2017 | Invited to attend the Workshop: "Workshop/School on Stochastic PDEs, Mean Field Games and Biology", Gran Sasso Science Institute, L'Aquila (ITALY).       |
| 27 April 2016                     | Invited speaker in the cycle of seminars: "Seminari di Analisi Astratta", Milan (ITALY).<br>Talk: "An Introduction to Gaussian measure in Banach spaces". |
| 25 November 2014                  | Invited speaker in the cycle of seminars: "Seminario Rey Pastor", Murcia (SPAIN).   |

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|---------------------------------------|--|
| 21 March 2013                         | Talk: " <i>Weakly metrizable spheres and renorming</i> ".<br>Invited speaker in the cycle of seminars: "Seminari di Analisi Astratta", Milan (ITALY).  |
| 21 February 2013                      | Talk: " <i>Strictly convex renorming: a characterization</i> ".<br>Invited speaker in the cycle of seminars: "Seminario Rey Pastor", Murcia (SPAIN).<br>Talk: " <i>Localization techniques for renorming</i> ".  |
| <b>Conferences and talks</b>          |  |
| 4 September 2017 – 6 September 2017   | Attending the workshop "Deterministic and stochastic evolution equations", Parma (ITALY).<br><br>Talk: " <i>On the domain of elliptic operators in subsets of Wiener spaces endowed with a weighted Gaussian measure</i> ".  |
| 22 May 2017 – 26 May 2017             | Attending the conference "Partial Differential Equations and Applications", Bologna (ITALY).<br>Talk: " <i>On the domain of elliptic operators in subsets of Wiener spaces endowed with a weighted Gaussian measure</i> ".   |
| 4 October 2016 – 7 October 2016       | Attending the conference "Lecca Conference in Calculus of Variations and Partial Differential Equation", Lecce (ITALY).  |
| 9 June 2016 – 10 June 2016            | Attending the workshop "IV Workshop in Functional Analysis", Cartagena (SPAIN).<br>Talk: " <i>Generalized metric spaces and renorming of Banach spaces</i> ".<br>Poster: " <i>Sobolev regularity for solutions of elliptic equations in infinite dimensional Banach spaces endowed with a weighted Gaussian measure</i> ". |
| 29 May 2016 – 3 June 2016             | Attending the workshop "Final Workshop of the 19 <sup>th</sup> Internet Seminar", Casalmaggiore (ITALY).<br>Talk: " <i>H-Lipschitz functions</i> ".  |
| 14 December 2015 – 18 December 2015   | Attending the conference "Sixth Trilateral Meeting on Nonlinear Partial Differential Equations and Applications", Parma (Italy).   |
| 19 July 2015 – 24 July 2015           | Attending the school "Operator Semigroups for Dynamical Systems: Positivity, Perturbation, Networks", Wuppertal (GERMANY).   |
| 6 July 2015 – 10 July 2015            | Attending the workshop "New advances in PDE's, Inverse Problems and Control Theory", Parma (ITALY).<br><br>Talk: " <i>Sobolev spaces with respect to weighted Gaussian measures in infinite dimensions</i> ".  |
| 20 October 2014 – 24 October 2014     | Attending the school "Autumn School on Non-Linear Geometry of Banach Spaces and Applications", Métabief (FRANCE).  |
| 17 September 2014 – 19 September 2014 | Attending the workshop "Miniworkshop GIAF 2014", Milan (ITALY).<br><br>Talk: " <i>Kadec property and Stone metrization theorem</i> ".  |
| 17 September 2013 – 19 September 2013 | Attending the workshop "Incontro GIAF", Genoa (ITALY).<br><br>Talk: " <i>Strictly convex renormings and covering of the unit sphere</i> ".   |
| 21 January 2013 – 25 January 2013     | Attending the conference "Congreso bienal de la Real Sociedad Matemática Española 2013", Santiago de Compostela (SPAIN).<br>Talk: " <i>Characterizing and transferring rotund norms</i> ".   |
| 15 November 2012 – 16 November 2012   | Attending the conference "XI Encuentro de Análisis Funcional Alicante – Murcia – Valencia", Alicante (SPAIN).<br>Talk: " <i>Characterizations of rotund renormings using symmetries</i> ".   |
| 28 August 2012 – 1 September 2012     | Attending the conference "Integration, Vector measures and Related Topics V", Palermo (ITALY).<br>Talk: " <i>A topological property equivalent to the existence of a dual rotund renorming</i> ".  |
| 25 June 2012 – 30 June 2012           | Attending the workshop "IVth Workshop on Coverings, Selections, and Games in Topology", Caserta (ITALY).<br>Talk: " <i>Metrization theory and the Kadec property</i> ".  |
| 19 April 2012 – 21 April 2012         | Attending the Conference "VIII Encuentro de la Red de Análisis Funcional", La Manga del Mar Menor (SPAIN).<br>Poster: " <i>Metrization theory and the Kadec property</i> ".  |
| 17 November 2011 – 18 November 2011   | Attending the conference "IX Encuentro de Análisis Funcional Murcia – Valencia", Cartagena (SPAIN).  |
| 2 March 2011 – 5 March 2011           | Attending the conference "Integration, Vector measures and Related Topics IV", Murcia (SPAIN).   |

16 January 2010 – 23 January 2010

28 July 2008 – 29 August 2008

### Abroad experiences

20 November 2014 – 27 November 2014

4 September 2012 – 26 February 2013

2 October 2011 – 23 June 2012

7 January 2011 – 31 March 2011

### Teaching experiences

October 2016 – September 2017

October 2015 – December 2015

September 2014 – July 2016

March 2014 – February 2015

September 2013 – September 2014

September 2013 – September 2014

March 2013 – September 2013

April 2011 – September 2011

### Personal skills and competences

Computer skills and competences

Mother tongue(s)

Other language(s)

Self-assessment  
European level<sup>(1)</sup>

English

Spanish

French

Driving licence(s)

### Other research informations

Attending the school "38th Winter school in abstract analysis", Klenčí pod Čerchovem (CZECH REPUBLIC).

Attending the school "Interuniversity Mathematics Summer School", Perugia (ITALY) organized by INdAM (Istituto nazionale di alta matematica). Courses: Probability (Grade B) and Functional Analysis (Grade A)

Invited professor at the University of Murcia (SPAIN).

Visiting student at the University of Murcia (SPAIN) (Prof. José Orihuela).

Visiting student at the University of Murcia (SPAIN) (Prof. José Orihuela).

Visiting student at the University of Murcia (SPAIN) (Prof. José Orihuela).

Teaching assistant to the course "Istituzioni di Matematica" for the Bachelor in Science and Technology for the environment of the Università del Salento (Prof. Campiti).

Gives a Microcourse with the title "Ten Talks about infinite dimensional Geometry and Topology of Banach spaces", Parma (ITALY).

Tutor to the course "Analisi matematica I" and "Geometria I" for the Bachelor in Engineering of the Università degli studi di Parma (Prof. Mucci and Prof. Alessandrini).

Teaching assistant to the course "Geometria I" for the Bachelor in Physics of the Università degli studi di Milano (Prof. M. Rigoli).

Tutor to the course "Analisi matematica III" for the Bachelor in Physics of the Università degli studi di Milano (Prof. C. Zanco).

Tutor to the course "Matematica generale" for the Bachelor in Biology of the Università degli studi di Milano (Prof. M. Vignati).

Tutor to the course "Geometria I" for the Bachelor in Physics of the Università degli studi di Milano (Prof. G. Canuto).

Tutor to the courses "Matematica di Base" and "Matematica per le Scienze Sociali" for the Bachelor in Political Sciences of the Università degli studi di Milano (Prof. G. L. Forti).

LaTeX (Advanced), C, Matlab, Maple (Intermediate)

### Italian

| Understanding       |                     | Speaking            |                     |                     |                     | Writing             |                     |
|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|---------------------|
| Listening           | Reading             | Spoken interaction  |                     | Spoken production   |                     |                     |                     |
| B2 Independent user | B2 Independent user | B2 Independent user | B2 Independent user | B2 Independent user | B2 Independent user | B2 Independent user | B2 Independent user |
| C1 Proficient user  | C1 Proficient user  | C1 Proficient user  | C1 Proficient user  | C1 Proficient user  | C1 Proficient user  | C1 Proficient user  | C1 Proficient user  |
| A2 Basic user       | A2 Basic user       | A2 Basic user       | A2 Basic user       | A2 Basic user       | A2 Basic user       | A2 Basic user       | A2 Basic user       |

<sup>(1)</sup> Common European Framework of Reference (CEF) level

B (cars)

Member of the 2017 G.N.A.M.P.A. project "Equazioni e sistemi di equazioni di Kolmogorov in dimensione finita e non" (Equations and systems of Kolmogorov equations in finite and infinite dimension) funded by INdAM.

## Publications

- 1) S. Ferrari, L. Oncina, J. Orihuela, and M. Raja. Metrization theory and the Kadec property. *Banach J. Math. Anal.*, 10(2):281–306, 2016.
- 2) S. Ferrari, J. Orihuela, and M. Raja. Weakly metrizable spheres and renormings of Banach spaces. *Q. J. Math.*, 67(1):15–27, 2016.
- 3) G. Cappa and S. Ferrari. Maximal sobolev regularity for solutions of elliptic equations in infinite dimensional Banach spaces endowed with a weighted Gaussian measure. *J. Differential Equations* 261(12):7099–7131, 2016.
- 4) G. Cappa, S. Ferrari, Maximal Sobolev regularity for solutions of elliptic equations in Banach spaces endowed with a weighted Gaussian measure: The convex subset case, *J. Math. Anal. Appl.* (2017), <http://dx.doi.org/10.1016/j.jmaa.2017.09.015>.
- 5) S. Ferrari. Sobolev spaces with respect to weighted Gaussian measures in infinite dimensions. Submitted. *ArXiv e-prints*, 2016. <http://arxiv.org/abs/1510.08283v3>.
- 6) S. Ferrari, J. Orihuela and M. Raja. Generalized metric properties of spheres and renormings of normed spaces. Submitted. *ArXiv e-prints*, 2016. <http://arxiv.org/abs/1605.08175>.
- 7) D. Addona, G. Cappa and S. Ferrari. On the domain of elliptic operators defined in subsets of Wiener spaces. Submitted. *ArXiv e-prints*, 2017. <https://arxiv.org/abs/1706.05260>.

Lecce, 09/09/2017

Simone Ferrari

