CURRICULUM VITAE

Personal data

Surname:	Corni
Name:	Francesca
Date of birth:	04/12/1990
Place of birth:	Modena (MO), Italy
Languages:	Italian, English

Education

- 27/05/2021: Phd in Mathematics, University of Bologna (Phd in Mathematical Analysis - MAT/05).
  Supervisor: Prof. Bruno Franchi (University of Bologna); Co-supervisor Prof. Francesco Serra Cassano (University of Trento).
  Title of the Phd thesis: *Low codimensional intrinsic regular submanifolds in the Heisenberg group* $\mathbb{H}^n$.

- 31/03/2017: Master degree in Mathematics LM-40. University of Bologna.
  Master thesis in Analysis. Supervisor prof. Bruno Franchi.
  Title: *Rectifiable sets and Intrinsic Lipschitz graphs within Carnot Groups*
  https://amslaurea.unibo.it/13532/

  Final score: 110/110 with honours.

- 28/06/2013: Bachelor Degree in Mathematics L-35. University of Bologna.
  Bachelor thesis in Cryptography. Supervisor prof. Davide Aliffi.
  Title: *Crittografia ed autenticazione nel sistema Kerberos*
  https://amslaurea.unibo.it/5593/

  Final score: 110/110 with honours.

- 2009 : Scientific High-School diploma. Liceo Scientifico Mario Allegretti, Vignola.

  Final score: 100/100 with honours.

Working experience

- 01/09/2022 - on going: Postdoc at University of Bologna

- 01/09/2021 - on going: High School teacher of Mathematics at Istituto di Istruzione Superiore "Primo Levi" in Vignola (MO).

- 31/07/2021: winner of "Concorso STEM" (A026 - Mathematics)

- 19/02/2021 - 24/06/2021: High School teacher of Mathematics and Physics at Istituto di Istruzione Superiore "Lazzaro Spallanzani" in Castelfranco Emilia (MO).

- 2018/2019: Teaching assistant for the course *Analisi Matematica T-2* under the supervision of Proff. Fausto Ferrari and Vittorio Martino (Laurea in Ingegneria Chimica e Biochimica ed Ingegneria Elettronica e Telecomunicazioni).

- 2018/2019: Teaching assistant for the course *Analisi Matematica 2* under the supervision of Prof. Fausto Ferrari (Laurea in Fisica).

- 2017/2018: Teaching assistant for the course *Analisi Matematica 1* under the supervision of Proff. Bruno Franchi e Alberto Parmeggiani (Laurea in Matematica).

- 2017/2018: Teaching assistant for the course *Analisi Matematica T-A* under the supervision of Prof. Eleonora Cinti (Laurea in Ingegneria Gestionale).

Visiting periods and Abroad Experiences

- 23/09/2019 - 23/12/2019: Visiting student at Université Paris-Sud, under the supervision of Prof. Pierre Pansu.

- 27/02/2017 - 14/03/2017: Visiting student at University of Pittsburgh, to meet Prof. Juan J.Manfredi and Prof. Piotr Hajlasz.

- 01/09/2014 - 31/05/2015: University of Helsinki. Erasmus programme.

Communications

- On the 03/04/2019 I held the seminar "Intrinsic regular surfaces of low codimension in Heisenberg groups" at University of Pisa, invited by Prof. Valentino Magnani.

- On the 10/10/2019 I held the seminar "Intrinsic regular surfaces of low codimension in Heisenberg groups" at Université Paris-Sud, in occasion of the "Journée de rentrée de l'équipe Topologie et Dynamique".

Publications and Preprints

[1] Francesca Corni, *Intrinsic regular surfaces of low codimension in Heisenberg groups*, Annales Academiae Scientiarum Fennicae, 2021

[2] Francesca Corni and Valentino Magnani *Area formula for regular submanifolds of low codimension in Heisenberg groups*, Advances in Calculus of Variations, 2022

[3] Francesca Corni. *A reverse coarea-type inequality in Carnot groups*, Annales de l'institut Fourier, 2022

Conferences and Series of Periodic Seminars attended

- *Recent progress in Geometric Analysis and PDEs*, 16-18 September 2021 at University of Bologna

- *PaPa - Padua Paris sub-Riemannian seminar*, 6-7 September 2021 online

- 2019/2021 I attended the series of seminars now called *Sub-Riemannian seminars* (i.e. I followed the *Séminaire de Géométrie et Analyse Sous-Riemannienne*, held in Paris at Laboratoire Jacques-Louis Lions, and the *International sub-Riemannian seminars*, organized by Prof. Enrico Le Donne).

- *Geometric measure theory and Geometric analysis in Moscow*, 14-17 September 2020 on Zoom.

- *SRGI conference: Sub-Riemannian Geometry and Interactions*, 7-11 September 2020, at Sorbonne Université, Faculté Pierre et Marie Curie (I followed the conference online due to the pandemic situation).

- *Dispersive and subelliptic PDEs* 10-12 February 2020 at Centro di Ricerca Matematica E. De Giorgi (Pisa)

- *XXX Convegno Nazionale di Calcolo delle Variazioni* 3-7 February 2020 in Levico Terme.

- *Geometric measure theory in Padova*, 16-17 January 2020 at University of Padova.

- 2017/2020 I attended the series of periodic analysis seminars dedicated to B. Pini, organized by University of Bologna.

- 2017/2020 I attended the series of seminars *Topics in mathematics*, organized for PhD students by University of Bologna.

- *11th School on Analysis and Geometry in Metric Spaces*, 24-28 June 2019 in Levico Terme. My participation has been funded by the CIRM.

- *Something about nonlinear problems*, 13-14 June 2019 at University of Bologna.

- *Some topics of Geometric Analysis and Geometric Measure Theory*, 16-17 April 2019 at Centro di ricerca Ennio de Giorgi (Pisa)

- *Variational and PDE problems in Geometric Analysis II*, 23-24 May 2019 at University of Bologna

- *Sub-Riemannian Geometry and Beyond, II*, 18-22 February 2019, University of Jyväskylä. I participated also to the week of mathematical courses preceding the conference, 11-16 February. My participation was co-funded by University of Jyväskylä.

- *Two Days on PDEs. Bruno Pini Centenary Conference*, 22-23 June 2018 in Bologna.

- *Sub-Riemannian Geometry Harmonic Analysis, PDE and applications*, 24-27 January 2018 in Bologna.

- *Analysis on Metric Spaces*, 10-11 March 2017, University of Pittsburgh.

Language skills

- Italian: native language.

- English: advanced level.

Programming knowledge

- Matlab: introductory level.

- Python: introductory level.