

Curriculum Vitae

Personal data

Name and Surname **Laura Baldelli**
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Position

Attending the 3rd year of PhD program in Mathematics at the University of Firenze “in consortium” with the University of Perugia and INdAM (XXXIV Cycle).

Education

Master Degree in Mathematics Master Degree in Mathematics on 26/10/2018 at the University of Perugia with the grade 110/110 cum laude. Thesis title "Existence of solutions for quasilinear problems with gradient terms", supervisor Prof. R. Filippucci;
Degree in Mathematics Degree in Mathematics on 29/09/2016 at the University of Perugia with the grade 110/110 cum laude. Thesis title: "Complementi sulla convergenza uniforme delle serie di Fourier", supervisor Prof. R. Filippucci;
Secondary education Graduated in July 2013 at the Liceo Scientifico “G. Alessi” in Perugia with the grade 100/100.

Grants, scholarships and awards

- 2014 Scholarship from *Istituto Nazionale di Alta Matematica* (INdAM) at the competition for 22 scholarships for students attending the 1st year Degree in Mathematics in any Italian University during the a.y. 2013/2014;
- 2015 Renewal scholarship of INdAM for the 2nd year according to the guidelines (passing all the exams of a.y. 2014/2015, with the mean over 27/30 and no grade under 24/30);
- 2016 Renewal scholarship of INdAM for the 3rd year according to the guidelines (passing all the exams of a.y. 2014/2015, 2015/2016 with the mean over 27/30 and no grade under 24/30);
- 2018 Reward “Atleta Eccellente, Eccellente Studente” with “Menzione d’onore” from the *Commissione Nazionale Atleti CONI* for athletes in the National Team in the year 2018 getting a Master Degree in the same year;
- 2017 Reward “Medaglia di Bronzo al Valore Atletico” for international results obtained in the year 2017;
- 2019 Reward “Medaglia di Bronzo al Valore Atletico” for international results obtained in the year 2019.

Summer schools and formation courses

- 2014 Meeting, by invitation, for all the recipients of scholarship INdAM held at the University of Perugia;
- 2015 Meeting, by invitation, for all the recipients of scholarship INdAM held at the University of Perugia;
- 2018 “Tecniche di biforcazione in problemi variazionali geometrici” PhD course held by prof. Piccione at Sapienza, University of Roma;
- 2019 “Normalized solutions of nonlinear Schrödinger equations and systems” PhD course held by prof. Bartsh and “Minmax methods for the area of surfaces” PhD course held by prof. Rivière at Roma Tor Vergata;
- 2019 “Scuola Matematica Interuniversitaria” 2019 (SMI) at the University of Perugia, with final score A+ in the course “Functional Analysis” held by prof Ghergu and A+ in the course “Differential Geometry” held by prof Ornea;

- 2019 "Classical and fractional partial differential equations under different perspectives" PhD course held by Professors Enrico Valdinoci, Serena Dipierro, Luca Lombardini, at the University of Milano;
- 2020 "Scuola Matematica Interuniversitaria" 2020 (SMI) in Cortona at Palazzone of the Scuola Normale Superiore, course "Transport and Fluids" held online, by prof. Bianchini and prof. Marcati;
- 2020 "Maximum principle and detours" 2020 (RISM) in Varese at Villa Toeplitz held online, by prof. Capuzzo Dolcetta;
- 2021 "Gamma-convergenza e applicazioni alla teoria dell'elasticità" PhD course held online by prof. Focardi and prof. Lazzaroni;
- 2021 "Campanato Spaces and their Application to Regularity of Solutions to PDEs", PhD course held online by prof. Vespri;
- 2021 "Scuola Matematica Interuniversitaria" 2021 (SMI) in Cortona at Palazzone of the Scuola Normale Superiore, course "Function spaces and generalized regularity" held online, by prof. Leoni and prof. Tice.

Seminars

- 28/10/2019 "*Existence results for elliptic problems with gradient terms*", seminar held on the PhD Thesis's argument (1st year);
- 6/10/2020 "*Critical problems in R^N* ", seminar held on the PhD Thesis's argument (2nd year);
- 27/1/2021 "*Liouville Theorems: developments and applications*", seminar online, in the collection of seminars "Insalate di Matematica" at the University of Milano - Bicocca.
- 17/9/2021 "*Critical problems in R^N with symmetries*", seminar held on the PhD Thesis's argument (3rd year);
- 20/9/2021 "*Nonlinear elliptic critical problems in R^N* ", seminar held during the "12th Forum of Partial Differential Equations" at Palace Bedlewo (Poland).

Referee Activity

Reviewer for Mathematical Reviews since 2020.

Teaching

Tutoring (40 h) for the course "Mathematics for Applications", Degree in Biotechnology during the a.y. 2016/2017 for PLS (Piano Lauree Scientifiche) - National Project of Biology and Biotechnology;

Contract for tutorials
(University of Perugia)

Training at the University of Perugia with academic tutor Prof. R. Filippucci, as Master degree program, achieved by exercise part and tutorials (75 h) for "Mathematical Analysis III" (MAT/05), Degree in Mathematics, a.y. 2016/2017;

Exercise part and tutorials for "Mathematical Analysis III" (MAT/05), II semester, Degree in Mathematics, University of Perugia, during the a.y. 2017/2018, 2018/2019, 2019/2020, 2020/2021;

Member of the examination board, with the title of "*Cultore della Materia*", for "Mathematical Analysis III" (MAT/05), Degree in Mathematics, and "Modern Analysis" (MAT/05), Master Degree in Mathematics.

Publications

1. **L. Baldelli and R.Filippucci** *A priori estimates for elliptic problems via Liouville type theorems*, Discrete Contin. Dyn. Syst. Ser. S, Special Issue on the occasion of the 65th birthday of Patrizia Pucci, 13 (2020) 1883-1898; (Q2 – IF (2019) 1.233);
2. **L. Baldelli and R.Filippucci** *Existence results for elliptic problems via a priori estimates*, Nonlinear Anal. 198 (2020), 22 pp. (Q1 – IF (2019) 1.587);
3. **L. Baldelli, Y.Brizi and R.Filippucci** *Multiplicity results for (p,q) -Laplacian equations with critical exponent in R^N and negative energy*, Calc. Var. Partial Differential Equations, 60 (2021) 30 pp. (Q1 – IF (2019) 1.526);
4. **L. Baldelli and R.Filippucci** *Existence of solutions for critical (p,q) equations in R^N* , submitted, 21 pp.;
5. **L. Baldelli, Y. Brizi and R.Filippucci** *On symmetric solutions of a (p,q) Laplacian equations in R^N with critical terms*, submitted, 20 pp..

Publications in preparation

1. **L. Baldelli and R.Filippucci** *Pointwise a priori estimates for p -Laplacian elliptic equations with gradient terms*, in preparation;
2. **L. Baldelli and R.Filippucci** *Existence results and a priori estimates for quasilinear problems with gradient terms*, in preparation;
3. **L. Baldelli and R.Filippucci** *Multiplicity for singular quasilinear Schrödinger equations with critical Sobolev exponent in R^N* , in preparation.

Personal skills

English Language Certification

1. **Level B2** at CLA (Centro Linguistico di Ateneo), University of Perugia, 7/6/2019;
2. **Level C1** at CLA (Centro Linguistico di Ateneo), University of Perugia, 21/1/2020.

Sport

National Events:

- 2nd place at “Coppa delle regioni” in 2010;
- 2nd place at “Indoor National Championship”, in 2011;
- 2nd place at “Targa National Championship”, in 2013;
- 1st place at “Coppa delle regioni” in 2014;
- 1st place at “HF National Championship”, in 2014;
- 2nd place at “Targa National Championship”, in 2014;
- 1st place at “Coppa delle regioni” in 2017;
- 2nd place at “HF National Championship”, in 2017;
- 2nd place at “Indoor National Championship”, in 2018;
- 1st place at “HF National Championship”, in 2019;
- 2nd place at “HF National Championship”, in 2021;

International Events:

- Convocation at “European Junior Cup” at Paphos (CYP) in 2011;
- Convocation at “European Junior Cup” at Porec (CRO) in 2012;
- 3rd place at “World field Championship” at Zagabria (CRO) in 2014;
- Convocation at “World Archery University Championship” at Ulaanbaatar (MGL);
- 3rd place at “European field Championship” at Mokrice (SLO) in 2017;
- Convocation at “European field Championship” at Mokrice (SLO) in 2019;
- Convocation at “European field Championship” at Porec (CRO) in 2021;

In 2012, 2015, 2018, 2020, 2021 member of the National Archery Team.

F.to Laura Baldelli