

## Brief characteristics of the Applicant for the habilitation procedure at CTU in Prague

Applicant: Antonella Marchesiello, Ph.D.

### A) In the area of teaching

- 1) The number of doctoral students for whom the applicant was appointed as a supervisor or specialist supervisor: 1
- 2) Number of defended diploma/bachelor's theses supervised by the Applicant: 0
- 3) One most important contribution in the field of teaching: introducing new courses Linear Algebra 1, Mathematical Analysis 1 and 2
- 4) Evaluation of the applicant in the student survey in the last 4 semesters: 1.36 (see Applicant's documentation for further details)

### B) In the creative area

- 1) Three significant original results of creative activity or arch. or art. realization:
  - Kubů, O.; Marchesiello, A.; Šnobl, L. New classes of quadratically integrable systems in magnetic fields: The generalized cylindrical and spherical cases, *Annals of Physics* 451 (2023), 169264, 24 pp.
  - Marchesiello, A.; Šnobl, L.; Winternitz, P. Three-dimensional superintegrable systems in magnetic fields, *Journal of Physics A: Mathematical and Theoretical* 48 (2015), no. 39, 135205, 24 pp., included in the *Journal of Physics A Math. Theor. Highlights of 2015*
  - Marchesiello, A.; Pugacco, G. Universal unfolding of symmetric resonances: simplifying high-order normal form, *Celestial Mechanics and Dynamical Astronomy* 119 (2014) no. 3-4, 357-368
- 2) H index excluding self-citations (according to WoS): 5
- 3) Number of citations according to WOS, always excluding self-citations: 56
- 4) Mobility (stay at a destination abroad – place, length of stay, outcome):
  - research visits (three to four weeks in each of the indicated years) at the Centre de Recherches Mathématiques Université de Montréal, Canada, invited by Prof. P. Winternitz in 2014, 2017, and 2018
  - research visits (two weeks) at Department of Mathematics, Università degli Studi Roma Tre, Italy (invited by Prof. P. Winternitz) and at Department of Physics, Università Degli Studi di Roma Tor Vergata, Italy (ten days, invited by Prof. G. Pugacco) in 2015
  - research visit (three weeks) at the Mathematical Institute, Utrecht University, Netherlands in 2015, invited by Dr. H. Hanssman
- 5) The two most significant grant projects where the applicant was in the position of principal investigator or principal co-investigator (applicant or co-applicant):

- INdAM grant (Italy) "Hamiltonian systems near indefinite resonances", (Supporting stay at the Mathematical Institute of Utrecht University for three months in 2014)
- INdAM grant (Italy) "Superintegrable systems with magnetic fields in three spatial dimensions" (Supporting stay at FNSPE CTU in Prague for three months in 2016)

- 6) Example(s) of applying the Applicant's results in practice: not specified
- 7) The most significant recognition by the community (including awards in arch. or art competitions): Prize of the Rector of the Czech Technical University in Prague for Excellent Research Results in 2020 (joint with L. Šnobl).
- 8) The most significant act of community service: reviewer for journals: Applied Mathematics Letters, Journal of Differential Equations, Journal of Mathematical Physics, Physics Letters A, Bulletin of the Brazilian Mathematical Society

In Prague on 21.05.2024

**Habilitation Committee:**

**Chairman**

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**Members**

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