Ivana Bešlić | Curriculum Vitae

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07.07.1994. Serbian

Education

Argelander Institute for Astronomy, University of Bonn, Germany — **Bonn, Germany**
PhD Degree in Astronomy and Astrophysics, Supervisor Prof. Dr. Frank Bigiel — *2018-present*

University of Belgrade, Faculty of Mathematics, Department of Astronomy — **Belgrade, Serbia**
Master's Degree in Astronomy and Astrophysics, CGPA—9.70/10.00 — *2017-2018*
Graduated on 27. of September, 2017

Master thesis *"Dynamical interaction of NGC 3109 association with Local Group"*, mentor: Prof. Dr. D. Ilić

University of Belgrade, Faculty of Mathematics, Department of Astronomy — **Belgrade, Serbia**
Undergraduate Degree in Astronomy and Astrophysics, CGPA—9.71/10.00 — *2013-2017*
Graduated on 28. of September, 2017.

Mathematical Grammar School in Belgrade — **Belgrade, Serbia**
Special mentored program for gifted students, — *2009–2013*

Publications

ADS Library

First author

1. *Dense molecular gas properties on 100 pc scales across the disc of NGC 3627*, Bešlić et al. 2021, MNRAS, 506, 963
2. *Dense molecular gas properties across a starburst galaxy NGC253*, Bešlić in prep

Second author

1. *Reproducing NGC 3109 association in numerical simulations*, Mićić, M, Bešlić, I, Martinović, N, accepted in MNRAS

Co-author - selected publications

1. *A CO isotopologue Line Atlas within the Whirlpool galaxy Survey (CLAWS)*, den Brok et al., 2022, arXiv e-print
2. *The PHANGS-MUSE survey – Probing the chemo-dynamical evolution of disc galaxies*, Emsellem et al, 2021
3. *PHANGS-ALMA Data Processing and Pipeline*, Leroy et al, 2021b, ApJ, 255, 19
4. *PHANGS-ALMA: Arcsecond CO(2-1) Imaging of Nearby Star-Forming Galaxies*, Leroy et al, 2021a,
5. *Giant molecular cloud catalogues for PHANGS-ALMA: methods and initial results*, Rosolowsky et al. 2021, MNRAS, 502, 1218

Work experience

University of Bonn, Argelander Institute for Astronomy — **Bonn, Germany**
Teaching Assistant — *2019-present*

Co-mentoring master's projects — *2020-present*

- "Dense molecular gas and starformation on cloud scale withinNGC 2903", S. Vješnica
- "SOFIA FIFI/LS [CII] full disc mapping of galaxies NGC 3627, NGC 4321, and NGC 6946", I. Kovačić

University of Belgrade, Faculty of Mathematics, Department of Astronomy **Belgrade, Serbia**
Teaching Assistant *2017-2018*

Mathematical Grammar School and National Astronomy Olympiad Committee **Belgrade, Serbia**
Lecturer, Member of committee *2016-2018*

Petnica Science Center **Valjevo, Serbia**
Senior Teaching Assistant *2017-present*

Junior Teaching Assistant *2016–2017*

Petnica International Seminar **Valjevo, Srbija**
Assistant, PI *2017*

Conferences and seminar talks

Meeting of ALMA Young Astronomers - Talk **virtual**
Molecular spectroscopy across nearby star-forming disc galaxies *02/03/2022*

Seminar at Chalmers, Astronomy and Plasma division **Gothenburg (virtual), Sweden**
Molecular spectroscopy across nearby star-forming disc galaxies *18/02/ 2022*

Seminar at Infrared Group, MPE **Garching (virtual), Germany**
Molecular spectroscopy across nearby star-forming disc galaxies *04/12/2021*

ISM 2021 - Talk **Beiruth (virtual), Lebanon**
Molecular cloud scale, mm-wave spectroscopy across the galaxy NGC 3627 *11-14/05/2021*

3rd IMPRS Conference - Talk **virtual**
Dense molecular gas properties on $\sim$ 100 pc scales across the whole disc of NGC 3627 *06/08/2020*

Views on the Interstellar Medium in galaxies in the ALMA era - Poster **Bologna, Italy**
EMPIRE at High Resolution: Molecular Clouds, Star Formation and Dense Gas at Arcsecond-Scale Across NGC 3627 *02-06/09/2019*

Proposals

Accepted PI proposal, ALMA Cycle 7 Suplementary Call **October 2019**
Mapping NGC 253 in dense gas tracers with ACA *45 h*

Accepted co-PI proposals $\sim$ 300 h (8)

- IRAM 30 m, NOEMA (5)
- ALMA (1)
- Meerkat (1)
- ESO (1)

1. *Deriving Gas Masses with CO isotopologues in the Central 400pc of the Firworks Galaxy, NGC6946*, PI: C. Eibensteiner, 10 hours
2. *Spatial variation in CO Excitation with Metallicity in M101*, PI: J. S. den Brok, 80 hours
3. *Unraveling the Physics that Enables Lyman Alpha Escape*, PI: J. Puschnig, 15 hours
4. *Resolving N2H+ (1-0) emission for the first time across the disk of a normal, star-forming galaxy: NGC6946*, PI: M. J. Jimenez-Donaire, 45 hours
5. *First cloud-scale measurement of N2H+ in a normal star-forming galaxy, PI: A. García-Rodríguez*, 45 hours
6. *Extragalactic Cloud Scale Observations of High Critical Density Tracers - Bridging the Gap to the Milky Way*, PI: A. T. Barnes, 25 hours

7. *Imaging the Disk and Outflow of the Starburst Galaxy NGC 253 with High-Resolution HI*, PI: A. Sardone, 50 hours
8. *Unveiling the fountain: the MUSE view on the Sculptor*, PI: E. Congiu, 63 hours

Observing experience ∼ 90 h

IRAM 30m telescope - singledish **on-site and remote - 60 h**
NOEMA M51 Large Programm *Spring 2020*

IRAM 30m telescope - singledish **remote**
10 h + 18 h *August 2020 and January 2021*

Workshops

SMA Winter School **virtual**
Working on the hands-on project: 230 GHz observations of the centre of M82 *January 2022*
Supervised by Garrett Keating and Luca Matrà

ISM of Galaxies - PCMI, PNCG **virtual**
Working on the hands-on project on deriving rotation curves *July 2021*
Supervised by Adam Leroy and Annie Hughes

9th IRAM 30m Summer School - IRAM, European Union's Horizon 2020 **Pradollano, Spain**
Working with NIKA-2 receiver and continuum data *September 2019*
Supervised by Jean-Francois Lestrade, Juan Macías-Pérez and Alessia Ritacco

Oracle Academy **Belgrade, Serbia**
SQL course completion certificate *2013*
- Training course in SQL covering all the basics of database design, creation and programming

CET Computer Equipment and Trade **Belgrade, Serbia**
C# basic *2008-2009*
Course of programming of console and graphic (GUI) applications, implementation and development of algorithms and principles of object-oriented programming in a language C#

Awards

2017: Best graduating student in class of 2013/14, Astronomy Department & "Prof. Zaharije Brkić" foundation, Serbia

2015-2018: Excellence in academic achievement, Faculty of Mathematics, Serbia

2014-2016: Award for best students from municipality Obrenovac, Serbia

Multiple awards (2005-2013): Winner of honors and awards in mathematics, physics and astronomy at regional and state level competitions for elementary, and high school students. Highlights:

- National competition in astronomy (2011): 3rd prize

Computer and Supplementary skills

Programing:: Python, IDL, C#, Pascal, Prolog, SQL (query, advanced database design); good understanding of algorithms and data structure;

Scientific software:: CASA, GILDAS, SAO-NASA ds9, glue, MATLAB, LaTeX, Origin, IRAF, MaximDL, `gnuplot`

Languages:: Serbian (native speaker) ▪ English (fluent) ▪ German (intermediate)