

Bianca-Iulia Ciocan

PHD STUDENT

University of Vienna, Department of Astrophysics, Türkenschanzstrasse 17, 1180, Vienna, Austria

☎ +43 660 635 1744 | ✉ bianca-iulia.ciocan@univie.ac.at

Personal Profile

I am a fourth year Prae-Doc university assistant in the Observational Extragalactic Astrophysics research group at the University of Vienna, Department of Astrophysics. My main research focus is galaxy formation and evolution, with a special emphasis on galaxies located in high-density environments, such as galaxy clusters. I mainly use 3D spectroscopic observations in conjunction with other multi-wavelength data to study the interplay between galaxy evolution and the environment. I am also involved in teaching and supervising students.

Education

PhD Astrophysics

UNIVERSITY OF VIENNA, DEPARTMENT OF ASTROPHYSICS

23.04.2019-present

- Supervisor: Univ. Prof. Dr. Bodo Ziegler

MSc Astrophysics

UNIVERSITY OF VIENNA, DEPARTMENT OF ASTROPHYSICS

01.03.2017-12.04.2019

- Supervisors: Univ. Prof. Dr. Bodo Ziegler, Dr. Christian Maier

BSc Astrophysics

UNIVERSITY OF VIENNA, DEPARTMENT OF ASTROPHYSICS

01.10.2013-19.12.2016

- Supervisor: Dr. Christian Maier

Professional Experience

2019-2023 **Prae-doc University Assistant**, University of Vienna, Department of Astrophysics, Austria

2018-2019 **Student Tutor**, University of Vienna, Department of Astrophysics, Austria

2018 **Study Assistant**, University of Vienna, Department of Astrophysics, Austria

Publications

“Morpho-kinematics of MACS J0416.1-2403 low mass galaxies” **Ciocan**, Ziegler, Böhm et al. A&A, 667, A61 (2022)

“The VLT-MUSE and ALMA view of the MACS 1931.8-2635 brightest cluster galaxy” **Ciocan**, Ziegler, Verdugo et al. A&A, 649, A23 (2021)

“CLASH-VLT: Enhancement of (O/H) in $z = 0.35$ RX J2248-4431 cluster galaxies” **Ciocan**, Maier, Ziegler Verdugo et al. A&A, 633, A139 (2020)

“Physical and kinematic conditions of the local merging galaxy NGC 1487” Buzzo, Ziegler, Amram, ..., **Ciocan** et al. MNRAS, 503, 106 (2021)

Presentations

Ciocan, Maier, Ziegler, 2019. “CLASH-VLT: Enhancement of (O/H) in $z=0.35$ RXJ 2248-4431 cluster galaxies”. Oral presentation at conference: The Art of Measuring Galaxy Physical Properties, Milan, Italy, 18.11.2019 - 22.11.2019.

Ciocan, Ziegler, 2020. Poster at conference: European Astronomical Society annual meeting, online, 29.06.2020 - 03.07.2020.

Ciocan, Maier, 2020. Poster at conference: European Astronomical Society annual meeting, online, 29.06.2020 - 03.07.2020.

Ciocan, Ziegler, 2021. Poster at conference: Multi-object Spectroscopy for Statistical Measures of Galaxy Evolution, online, 17.05.2021 - 20.05.2021.

Ciocan, Ziegler, 2021. Poster at conference: European Astronomical Society annual meeting, online, 28.06.2021 - 02.07.2021.

Ciocan, Ziegler, 2021. Poster at winter school: XXXII Canary Islands Winter School of Astrophysics, San Cristóbal de La Laguna, Spain, 23.11.2021 - 01.12.2021.

Ciocan, Ziegler, 2021. Talk in research group of Dr. Dannerbauer, Instituto de Astrofísica de Canarias, San Cristóbal de La Laguna, Spain, 02.12.2021.

Ciocan, Ziegler, 2022. Poster at conference: Multi-line Diagnostics of the Interstellar Medium, Nice, France, 04.04.2022 - 06.04.2022.

Ciocan, Ziegler, 2022. Poster at conference: Galaxy Clusters 2022 Virtual Conference, online, 25.04.2022 - 29.04.2022.

Ciocan. One talk per semester in the COSMOS PhD Seminar at the Department of Astrophysics, University of Vienna.

Teaching Experience

VU "Astrophysics II", Student Tutor, University of Vienna, Department of Astrophysics, 10.2018-02.2019

VU "Astrophysics II", Teaching Assistant, University of Vienna, Department of Astrophysics, 10.2019-02.2020

VU "Early Universe", Teaching Assistant, University of Vienna, Department of Astrophysics, 03.2020-09.2020

VU "Astrophysics II", Teaching Assistant, University of Vienna, Department of Astrophysics, 10.2020-02.2021

VU "Extragalactic Astrophysics", Teaching Assistant, University of Vienna, Department of Astrophysics, 03.2021-09.2021

SE "Bachelor Seminar on Astronomy", Thesis Supervisor, University of Vienna, Department of Astrophysics, 03.2021-09.2021

VU "Astrophysics II", Teaching Assistant, University of Vienna, Department of Astrophysics, 10.2021-02.2022

VU "Early Universe", Teaching Assistant, University of Vienna, Department of Astrophysics, 03.2022-09.2022

SE "Bachelor Seminar on Astronomy", Thesis Supervisor, University of Vienna, Department of Astrophysics, 03.2022-09.2022

VU "Astrophysics II", Teaching Assistant, University of Vienna, Department of Astrophysics, 10.2022-present

Mentoring

2021 **M. Koller**, Bachelor Thesis Supervisor, University of Vienna, Department of Astrophysics

2022 **M. Haase**, Bachelor Thesis Supervisor, University of Vienna, Department of Astrophysics

2022 **A. Neyer**, Bachelor Thesis Supervisor, University of Vienna, Department of Astrophysics

2022 **M. Koller**, Master Thesis Co-supervisor, University of Vienna, Department of Astrophysics

Research Experience

PhD Thesis: "The spatially resolved properties of galaxies in environments of clusters at their peak assembly epoch"

SUPERVISOR: UNIV. PROF. DR. BODO ZIEGLER

University of Vienna

2019 - present

Master's Thesis: "The slow quenching of CLASH RXJ2248-4431 cluster galaxies as traced by their gas-phase metallicities"

SUPERVISOR: UNIV. PROF. DR. BODO ZIEGLER, DR. CHRISTIAN MAIER

University of Vienna

2018-2019

Bachelor's Thesis: "Spectral analysis of intermediate redshift galaxies"

SUPERVISOR: DR. CHRISTIAN MAIER

University of Vienna

2015-2016

Skills

LANGUAGES

Romanian: native

English: advanced

German: advanced

COMPUTING EXPERIENCE

Programming language: Python (advanced level), R (beginner level)

Data reduction and analysis tools: ESORex, ESOReflex, Gasgano, ESO-MUSE pipeline (Weilbacher et al. 2020), ESO-SINFONI pipeline (Modigliani et al. 2007), Molecfit (Smette et al. 2015), ESO-MIDAS, VIPGI (Scodeggio et al. 2005), IRAF, LePHARE (Arnouts and Ilbert et al. 2011), FADO (Gomes and Papaderos 2016), Galpak3D (Bouche 2015), GIST (Bittner 2019), ppxf (Cappellari 2017), Galfit (Peng et al. 2002), SExtractor (Bertin and Arnouts 1996), SAOImageDS9, QFitsView, Topcat, Aladin

Writing languages and editors: LaTeX, Microsoft Office

Outreach & Professional Development

SERVICE AND OUTREACH

2022	Working group: "New curriculum for Bachelor's and Master's programmes, University of Vienna" , Committee member	<i>Vienna</i>
2021	Big Picture Talk Series, Vienna International School of Earth and Space Sciences , Scientific organising committee member	<i>Vienna</i>

DEVELOPMENT

Workshop: Basic qualification for Junior Staff - Teaching in Higher Education: The course informed about the practicalities of teaching at the Vienna University and assisted in course design and planning, and in the developing of a repertoire of teaching and learning methods.

Workshop: Presentation techniques and public speaking skills: The course aimed at helping us develop the necessary language and delivery competencies to express our ideas, as well as techniques for the effective structuring of a presentation.

Winter School: XXXII Canary Islands Winter School of Astrophysic - Formation and Evolution of Galaxy Clusters Across Cosmic Time: Intensive courses about galaxy clusters and hands-on workshop with simulated data.

PROFESSIONAL MEMBERSHIPS

ÖGAA (Österreichischen Gesellschaft für Astronomie und Astrophysik)

EAS (European Astronomical Society)

References

Univ. Prof. Dr. Bodo Ziegler, **email:** bodo.ziegler@univie.ac.at, Institution: University of Vienna, Austria