

ALINA BOECKER

CONTACT

-  Instituto de Astrofísica de Canarias (IAC)
-  La Laguna, Tenerife, Spain
-  aboecker@iac.es
-  <https://boeckera.github.io>
-  0000-0003-2945-106X
-  NASA/ADS publication list

SKILLS

Programming

Python	●●●●●●
Fortran	●●●●●●
SQL	●●●●●●
HTML/CSS	●●●●●●

Software & Tools

Visualisation (e.g. matplotlib, seaborn)	●●●●●●
Data handling/analysis (e.g. numpy, scipy, pandas)	●●●●●●
Performance (e.g. multiprocessing, numba)	●●●●●●
Astronomy (e.g. pPXF, MGEFit, Vorbin)	●●●●●●
LaTeX	●●●●●●
Microsoft Office	●●●●●●



Languages

German	●●●●●●
English	●●●●●●
Japanese	●●●●●●
Spanish	●●●●●●
French	●●●●●●







RESEARCH INTERESTS

- galaxy evolution & formation
- merger/accretion histories of galaxies
- stellar populations
- SSP models
- dynamical modelling
- star formation histories
- chemical enrichment
- integrated spectra
- IFU observations
- build-up of galactic centers
- cosmological hydrodynamical simulations







RESEARCH EXPERIENCE

-  10/2022 - present
 Instituto de Astrofísica de Canarias,
La Laguna, Tenerife, Spain
Post-doctoral researcher
working with Dr. Ignacio Martín-Navarro and Dr. Jesús Falcón-Barroso
-  07/2022 - 09/2022
 Max-Planck-Institute for Astronomy,
Heidelberg, Germany
Post-doctoral researcher
working with Dr. Nadine Neumayer and Dr. Annalisa Pillepich
-  09/2018 - 07/2022
 Max-Planck-Institute for Astronomy,
Heidelberg, Germany
PhD Student
Tracing the central stellar mass assembly of galaxies in a cosmological context: insights from observations and simulations
Supervisor: Dr. Nadine Neumayer
-  03/2017 - 03/2018
 Max-Planck-Institute for Astronomy,
Heidelberg, Germany
Msc Thesis
Recovering the accretion histories of galaxies from integrated spectra
Supervisors: Dr. Glenn van de Ven & Dr. Ryan Leaman
-  09/2015 - 06/2016
 Max-Planck-Institute for Astronomy,
Heidelberg, Germany
Bsc Thesis
Recovering the star formation and accretion histories of EAGLE galaxies with spectral synthesis techniques
Supervisors: Dr. Glenn van de Ven & Dr. Ryan Leaman



EDUCATION

-  09/2018 - 07/2022
 Rubrecht-Karls University,
Heidelberg, Germany
PhD in Astronomy
Member of the International Max Planck Research School for Astronomy & Cosmic Physics
-  07/2016 - 03/2018
 Rubrecht-Karls University,
Heidelberg, Germany
Master of Physics
-  09/2012 - 06/2016
 Rubrecht-Karls University,
Heidelberg, Germany
Bachelor of Physics

RESEARCH VISITS

-  04 - 15/10/2021
 Department of Astrophysics,
University of Vienna, Austria
Collaboration with Ryan Leaman and Glenn van de Ven to expand my research project on accretions histories of galaxies. Supported PhD Student Christine Ackerl with her research project.
-  21 - 01/02/2019
 ESO, Garching, Germany
Generated first results on kinematics and stellar populations of IC1101 from MUSE observations for Fernando Buitrago and helped with further data analysis.
-  05/2019
 IAC, Tenerife, Spain
Presented work of Bachelor thesis and exchanged experience about full spectral fitting software pPXF with other scientists.

TEACHING

-  2019 - 2020
 Max-Planck-Institute for Astronomy,
Heidelberg, Germany
Experiments for Bachelor Students
(Uni. Heidelberg)
"CCD Photometry": operation of KING telescope at MPIA, data reduction and CMD analysis
"Wavefront analysis": principles of adaptive optics with Shack-Hartmann sensor

PROFESSIONAL ACTIVITIES

- 📅 2020 - 2022
📍 Max-Planck-Institute for Astronomy, Heidelberg, Germany
Organizer of the weekly seminar "Galaxy Coffee"
- 📅 16 - 18/03/2020
📍 Max-Planck-Institute for Astronomy, Heidelberg, Germany
Organizer of (Online) Dynamics Group Retreat
Scientific exchange between the "Galactic Nuclei" research group of Dr. Nadine Neumayer at MPIA and the "Dynamics of Stellar Systems" research group of Prof. Glenn van de Ven in Vienna
- 📅 19 - 23/11/2018
📍 Max-Planck-Institute for Astronomy, Heidelberg, Germany
LOC of the conference "Survival of Dense Star Clusters in the Milky Way System"

OUTREACH ACTIVITIES

- 📅 2019 - 2022
📍 Haus der Astronomie, Heidelberg, Germany
Outreach Fellow
Guiding tours to MPIA telescopes, planetarium shows
- 📅 2021
📍 (Online) Haus der Astronomie, Heidelberg, Germany
Workshop organizer of "Girl's Day"
A day to fascinate and educate female high-school students for astronomy
- 📅 2019
📍 Haus der Astronomie, Heidelberg, Germany
Co-organizer of "Girl's Day"
A day to fascinate and educate female high-school students for astronomy
- 📅 2019
📍 Mannheim, Germany
Supervisor at "Explore Science" fair

SCHOOLS, WORKSHOPS AND LECTURES

- 📅 05 - 09/10/2020
📍 Rubrecht-Karls University, Heidelberg, Germany
45th Heidelberg Physics Graduate Days
Lecture on "Modern galactic dynamics in the era of plentiful data" by Eugene Vasiliev. Obtained theoretical background on dynamical modelling and coded own Gaussian mixture models for kinematic datasets.
- 📅 11 - 14/02/2019
📍 Rubrecht-Karls University, Heidelberg, Germany
"Introduction to GPU Accelerated Computing"
Lecture on the basics of GPU computing and the CUDA language.
- 📅 10 - 12/04/2018
📍 Max-Planck-Institute for Astronomy, Heidelberg, Germany
Dynamics Workshop
Learnt how to use and run Schwarzschild models on IFU data of galaxies.
- 📅 12 - 16/09/2016
📍 Rubrecht-Karls University, Heidelberg, Germany
IMPRS Summer School "Astrostatistics & Data Mining"
Lectures and exercises on Bayesian modelling and multi-dimensional data sets.

TALKS AND CONFERENCES

- 📅 05 - 09/12/2022
📍 Perth, Australia
Dynamite Workshop on Dynamical Modelling (*planned*)
- 📅 28/11 - 02/12/2022
📍 Wollongong, Australia
Contributed Talk at "Linking the Galactic and Extragalactic" conference (*planned*)
- 📅 10/2022
📍 IAC, Tenerife, Spain
Seminar Talk at "TRACES" research group of Dr. Ignacio Martín-Navarro
- 📅 07/2022
📍 MPIA, Heidelberg, Germany
Seminar Talk at "Theory" research group of Dr. Annalisa Pillepich
- 📅 03/2022
📍 Ringberg Castle, Germany
Research Talk at the Galaxies and Cosmology Retreat
- 📅 11/2021
📍 MPIA, Heidelberg, Germany
Seminar Talk at "Theory" research group of Dr. Annalisa Pillepich
- 📅 10/2021
📍 IAC, Tenerife, Spain
Seminar Talk at "TRACES" research group of Dr. Ignacio Martín-Navarro
- 📅 10/2021
📍 Vienna, Austria
Seminar Talk at "Dynamics of Stellar Systems" research group of Prof. Glenn van de Ven
- 📅 15 - 26/03/2021
📍 Online
Invited Talk at "Tomographic Reconstructions and their Startling Applications" workshop
Watch the talk: <https://www.youtube.com/watch?v=Jh6RSrML3lo>
- 📅 03 - 04/12/2020
📍 Online
Contributed Talk at "Linking the Galactic and Extragalactic" virtual meeting
Talk voted in Top 4: <https://www.youtube.com/watch?v=dimZ-1OYSrU>
- 📅 11/2020
📍 Heidelberg, Germany
Talk at IMPRS-HD seminar
Seminar of the International Max Planck Research School for Astronomy & Cosmic Physics in Heidelberg
- 📅 05/2020
📍 MPIA, Heidelberg, Germany
Talk at "Galaxy Coffee" Seminar
- 📅 17 - 21/2020
📍 Leiden, Netherlands
Invited Talk at "Dynamical Reconstruction of Galaxies"
- 📅 18 - 22/11/2019
📍 Milan, Italy
Talk and Poster at "The Art of Measuring Galaxy Physical Properties" conference
- 📅 06/2019
📍 Heidelberg, Germany
Talk at IMPRS-HD seminar
Seminar of the International Max Planck Research School for Astronomy & Cosmic Physics in Heidelberg
- 📅 09 - 14/06/2019
📍 Sexten, Italy
Contributed Talk at "Light in the suburbs: Structure and chemodynamics of galaxy halos" conference
- 📅 27 - 31/05/2019
📍 Bologna, Italy
Poster at "IAUS 251/MODEST-19: Star Clusters: from the Milky Way to the Early Universe" conference
- 📅 01/2019
📍 MPIA, Heidelberg, Germany
Talk at "Galaxy Coffee" Seminar
- 📅 06/2019
📍 Heidelberg, Germany
Talk at IMPRS-HD seminar
Seminar of the International Max Planck Research School for Astronomy & Cosmic Physics in Heidelberg
- 📅 19 - 23/11/2018
📍 MPIA, Heidelberg, Germany
Talk at the "Survival of Dense Star Clusters in the Milky Way System" conference
- 📅 02 - 06/06/2018
📍 MPIA, Heidelberg, Germany
Talk at the "Stellar halos across the cosmos" conference
- 📅 02/2018
📍 ESO, Garching by Munich, Germany
Contributed Talk at the Fornax3D Meeting
- 📅 10/2017
📍 Capodimonte, Naples, Italy
Contributed Talk at the Fornax3D Meeting
- 📅 09/2016
📍 IAC, Tenerife, Spain
Seminar Talk at "TRACES" research group of Dr. Mike Beasley

REFERENCES

Dr. Nadine Neumayer (MPIA; neumayer@mpia.de)
Dr. Annalisa Pillepich (MPIA; pillepich@mpia.de)
Prof. Glenn van de Ven (Uni. Vienna; glenn.vandeven@univie.ac.at)