

DR. THALES A. GUTCKE
NASA Hubble fellow

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ORCID:0000-0001-6179-7701
Born on March 11, 1988 in Bodrum, Turkey
Citizenship: USA & Germany

ACADEMIC POSITIONS

2022 - 2024 Hubble fellow, University of Hawai'i at Mānoa
2021 - 2022 Hubble fellow, Princeton University
2018 - 2021 Independent fellow, Max Planck Institute for Astrophysics, Garching
2018 Postdoctoral researcher, Max Planck Institute for Astronomy, Heidelberg
2016 - 2018 Visiting scholar, New York University Abu Dhabi

EDUCATION

2018 Max Planck Institute for Astronomy, PhD in Astrophysics, magna cum laude
2014 Max Planck Institute for Astronomy, M.S. in Physics
2011 University of Heidelberg, B.S. in Physics

INTERESTS

What forms of feedback regulate star formation in galaxies?
Under what conditions do baryons alter the dark matter distribution?
Where is the boundary between star clusters and dwarf galaxies?
What is the chemical composition and morphology of the interstellar medium?
Promoting diversity and equal opportunity in astronomy and in life

REFERENCES

Prof. Volker Springel (collaborator) volker@mpa-garching.mpg.de
Prof. Andrea Macciò (PhD adviser) maccio@nyu.edu
Prof. Carlos Frenk (collaborator) c.s.frenk@durham.ac.uk
Dr. Thorsten Naab (collaborator) naab@mpa-garching.mpg.de
Prof. Romain Teyssier (collaborator) teyssier@princeton.edu

GRANTS & FELLOWSHIPS

2022 Princeton Scientific Writing Fellowship (includes 1 semester salary)
2021 NASA Hubble Fellowship (3 years)
2021 Lyman Spitzer, Jr. Fellowship, Princeton (declined)
2021 - 2023 40 million core hours (equivalent to >\$1.6 million in funding)
at Leibniz Supercomputing Center (LRZ), Germany
2018 - 2021 20 million core hours (equivalent to >\$800 000 in funding)
at Max Planck Computing and Data Facility (MPCDF)
2018 MPA independent research fellowship (3 years)
2018 CCA/CfA joint postdoctoral fellowship (declined)
2017 Funding to host 12-week summer student (equivalent to REU)
from German Academic Exchange Service (DAAD)
2014 International Max Planck Research School (IMPRS) fellowship
2014 Full graduate scholarship (4 years) from German Research Council
Collaborative Research Center "The Milky Way" (DFG, SFB 881, A1)

COLLABORATIONS

2022 - present Member of All Sky Automated Survey for SuperNovae (ASAS-SN) collaboration
2021 - present PI of *LYRA* computing allocation (Leibniz Center/SuperMUC-NG, 40 M c/hrs)
2020 - 2021 Co-I of *Virgo* computing allocation (DiRAC/COSMA, 30 M c/hrs)
2020 - present Project lead for flagship program “LYRA”, Virgo Consortium
2014 - 2018 Member of NIHAO simulations collaboration

OBSERVING EXPERIENCE

2022 PI on GEMINI-N proposal, 1.7 hours awarded
2017 - present Co-I on 4 ESO-VLT/MUSE proposals (> 100 h awarded)
2017 16 nights observing at MPIA/ESO 2.2m, La Silla, Chile

TEACHING & MENTORING

2023 Taught select lectures, *ASTR 260 - Computational Physics & Astronomy*
University of Hawai‘i at Hilo
2022 Graduate course, *Proposal Writing for Quantitative Disciplines*, Princeton
2022 *Pedagogy in Practice*, teaching workshop, Princeton
2021 - 2022 Co-advisor of graduate student Jessica May Hislop, MPA
2020 - 2021 Co-advisor of graduate student Alejandra Fresco, MPA
2017 Mentored REU student Rokas Žemaitis, MPIA
2015 M.S. physics lab instructor, University of Heidelberg
2014 B.S. physics lab instructor, University of Heidelberg

SERVICE ACTIVITIES

2022 Volunteer at ‘Imiloa Astronomy Outreach Center, Hilo, Hawai‘i
2022 - present NASA Community College Network “subject matter expert”
2021 “Future Leader” at AURA annual meeting
2020 - present Reviewer for ANR and DiRAC computing proposals
2018 - present Referee for MNRAS
2019 - 2021 Journal Club Coordinator (MPA)
2017 Equal Opportunity Officer (MPIA)
2014 - 2016 Graduate student representative (MPIA)

INVITED TALKS & OUTREACH

Apr 2023 Königstuhl Colloquium, Max Planck Institute for Astronomy, Heidelberg (*planned*)
Nov 2022 Colloquium, Department of Astronomy, Ohio State University, USA
May 2022 Theory Seminar, Canadian Institute for Theoretical Astrophysics, Toronto, Canada
Apr 2022 TAC Seminar, Theoretical Astrophysics Center, UC Berkeley, USA
Mar 2022 Joint Astrophysical Colloquium, INAF - University of Bologna, Italy
Feb 2022 Joint Colloquium, Steward Observatory/NSF’s NOIRLab, Tucson, USA
Feb 2022 IfA Colloquium, Institute for Astronomy, University of Hawai‘i, Mānoa, USA
May 2021 Seminar, ICRAR/UWA, Australia
Mar 2021 Lorentz Center Workshop, Leiden, The Netherlands
2016 - present *Frequent public speaker*, including Dark Matter Day, MPIA open house day and Science March

SCHOOLS & INTERNSHIPS

Aug 2020 Parallel Programming with MPI/OpenMP, ETH Zurich
Sept 2016 11th Heidelberg Summer School on Astrostatistics & Data Mining

Jan 2016 HGSP Winterschool, Obergurgl, Austria
Sept 2015 Astro Hack Week, New York University
Aug 2013 Adaptive Optics Summer School, University of California, Santa Cruz
April 2012 Calibration and integration of the Yale Doppler Diagnostic Facility

OTHER SKILLS

Languages English (native), German (native), French (interm.), Italian (interm.)
Coding Languages Python, C/C++, MPI/OpenMP,HTML, Arduino IDE
Codes & Software AREPO, Gasoline, CLOUDY, ZEMAX, SolidWorks, galfit, SUNRISE