

Curriculum Vitae of Prof. Dr. Henrik Beuther

Date of Birth: May 10th, 1971, Cologne/Germany

Nationality: German

Marital Status: Married, 3 children

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National Service: 10/1990–9/1991 Navy: Navigation of Minesweepers in the Baltic Sea

Education: 10/1992–2/1999 Physics Diploma (summa cum laude), University of Cologne,
Thesis: *On-the-fly mapping and multi-line analysis of the
interstellar molecular cloud Cepheus B*

4/1999–3/2002 PhD (summa cum laude) at the Max-Planck-Institute
for Radioastronomy and the University of Bonn,
Thesis: *Early stages of massive star formation*

July 2008 Habilitation at the University of Heidelberg

Sept. 2013 Associate Professor at the University of Heidelberg

Employment: 4/2002–3/2003 Post-Doc at the Max-Planck-Institute for Radioastronomy, Bonn
4/2003–8/2005 Post-Doc at the Harvard-Smithsonian Center for Astrophysics, Cambridge
Emmy-Noether Fellow of the Deutsche Forschungsgemeinschaft
9/2005–9/2009 Head of the Emmy-Noether Research Group “The Formation
of Massive Stars” at the Max-Planck-Institute for Astronomy, Heidelberg
9/2009– Scientific staff member of the Max-Planck-Institute for Astronomy

Research exp.: **High-mass star formation:** Study the physics and chemistry of the earliest stages of massive star formation. Investigate the properties of molecular outflows, large- and small-scale dust and gas emission, accretion disks, chemical characteristics of massive cores, initial core fragmentation, and magnetic field properties massive protostars

Low-mass star formation: Molecular outflows/jets and their association with the accretion disks. Physical and chemical properties of starless cores.

Molecular cloud studies: Multi-line studies and modeling of molecular cloud conditions at the interface with star-forming regions. Atomic to molecular gas transition. Cloud collapse. Feedback processes from HII regions to the ISM.

Extragalactic star formation: Masers in external galaxies. Star formation in bar-spiral interfaces and the vicinity of black holes.

Observational experience:

Interferometers: ALMA, IRAM PdBI/NOEMA, SMA, (E)VLA, ATCA, CARMA;
Single-dishes: IRAM 30m, Eff. 100m, CSO, JCMT, KOSMA, APEX, Nobeyama 45 m, VLT;
Space telescopes: Spitzer, Chandra, Herschel, SOFIA, JWST

- Awards:
- 10/2000–3/2002: Fellowship of the German National Science Foundation (DFG) in program 471 *Physics of Star Formation*.
 - Oct. 2002: Feodor-Lynen fellowship from the Humboldt foundation (declined)
 - Dec. 2002: Emmy-Noether fellowship (phase I) from the German Science Foundation (DFG) to work at the Harvard-Smithsonian Center for Astrophysics (Cambridge/USA) for two years (04/2003 – 03/2005).
 - Dec. 2004: Emmy-Noether fellowship (phase II) from the German Science Foundation (DFG) to build a Junior research group at the Max-Planck-Institute for Astronomy/Heidelberg (started 09/2005).
 - September 2007: Ludwig-Biermann Förderpreis of the German Astronomical Society (German equivalent to AAS Newton Lacy Pierce early career price).
 - 2011: Sub-project for PhD student in Heidelberg SFB “The Milky Way” (phase I).
 - 2013: Awarded Associated Professorship at University of Heidelberg
 - 2014: Sub-project for PhD student in Heidelberg SFB “The Milky Way” (phase II).
 - 2015: Awarded ERC Consolidator Grant
 - 2018: Sub-project for PhD student in Heidelberg SFB “The Milky Way” (phase III).
- Large projects:
- Co-PI of Max Planck IRAM Observatory program (MIOP) on Cygnus X “CASCADE”.
 - Steering group member of ALMA large program ALMAGAL.
 - Member of European JWST/MIRI science consortium and GTO project on protostars.
 - PI of IRAM PdBI/NOEMA large program “CORE: Fragmentation and disk formation during high-mass star formation”, <http://www.mpia.de/core>.
 - PI of VLA large program “THOR: The HI/OH/Recombination line survey of the Milky Way”, <http://www.mpia.de/thor>.
 - Member of Sofia large program FEEDBACK.
 - Member of ALMA large program ACES.
 - Member of ESO/MPG large program SEDIGISM at APEX.
 - Member of ESO/MPG large program ATLASGAL at APEX.
 - Member of Herschel key project EPOS “The earliest phases of star formation”.
- Teaching exp. & additional qualification:
- Associate Professor at University Heidelberg.
 - Lectures at several summer schools.
 - Supervision of five postdocs, eleven PhD, five Master and four Bachelor students.
 - Main organizer of the international conference “Massive Star Formation: Observations confront theory” in the Heidelberg Convention Center with 250 participants, Sept. 2007.
 - Main Organizer of the international conference “Protostars and Planets VI” with 850 participants in Heidelberg, July 2013
 - (Co-)organizing meetings with 50 to 100 participants at CfA, MPIA and NAM2012.
 - Refereeing 3-5 papers in int. journals per year (e.g., Nature, ApJ, A&A, MNRAS).
 - ESO program panel member 2008/2009.
 - MPG APEX Time Allocation Committee member since 2008.
 - IRAM program committee member 2009-2014.
 - ALMA program committee member 2015-2020
 - ERC, DFG and ANR referee.
 - Member of German Science Sofia Working Group (GSSWG).
 - Member of German Astronomical Society (AG).
 - MPIA institute representative in the CPT section of the MPG (2013-2019).