

# Sophia Katharina Stuber

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## Education

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### PhD in astronomy

UNIVERSITY OF HEIDELBERG

- Thesis title: "The ISM and Star-formation in Nearby Galaxies"
- Supervisor: Dr. Hans-Walter Rix (MPIA), Dr. Eva Schinnerer (MPIA) and Prof. Dr. Ralf Klessen (ITA)

02/2022 - ongoing

Heidelberg, Germany

### Master of science physics

UNIVERSITY OF HEIDELBERG

- Thesis title: "The Molecular Gas Morphology of Nearby Galaxies"
- Supervisor: Dr. Eva Schinnerer (MPIA) and Dr. Henrik Beuther (MPIA)
- Thesis Grade: 1.1
- Master Grade: 1.1

09/2019 – 01/2022

Heidelberg, Germany

### Bachelor of Science Physics

UNIVERSITY OF HEIDELBERG

- Thesis title: "The abundance of nuclear molecular outflows in nearby galaxies"
- Supervisor: Dr. Eva Schinnerer (MPIA)
- Thesis Grade: 1.0
- Bachelor Grade: 1.7

10/2016 – 8/2019

Heidelberg, Germany

### Abitur

HOHENLOHE GYMNASIUM ÖHRINGEN

Grade 1.1

6/2016

Öhringen, Germany

## Skills

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**Programming** LaTeX, C++, Python, CASA, GILDAS

**Languages** German (native), English (fluent), Japanese (proficient), French (beginner)

## Teaching and Outreach

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### MPIA Outreach fellow

MAX PLANCK INSTITUTE FOR ASTRONOMY

- Outreach duties including planetarium presentations, accompanying school groups and other events

06/2022 – ongoing

Heidelberg, Germany

### Tutor "Basiskurs Schlüsselkompetenzen"

UNIVERSITY OF HEIDELBERG, DEPARTMENT OF PHYSICS AND ASTRONOMY

- Introductory course for first semester students on academic studies

10/2018 – 1/2019

Heidelberg, Germany

### Tutor "Basiskurs Schlüsselkompetenzen"

UNIVERSITY OF HEIDELBERG, DEPARTMENT OF PHYSICS AND ASTRONOMY

- Introductory course for first semester students on academic studies

10/2017 – 1/2018

Heidelberg, Germany

### Foundation and teaching of the "Japan-AG" school course

HOHENLOHE GYMNASIUM ÖHRINGEN

- Introductory course into Japanese culture and language

9/2015 – 7/2016

Öhringen, Germany

## Publications

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### Frequency and Nature of Central Molecular Outflows in Nearby Star-Forming Galaxies

DOI: 10.1051/0004-6361/202141093

Stuber et al. 2021 A&A, 653, 172

### Co-author papers:

#### AGN-driven Cold Gas Outflow of NGC 1068 Characterized by Dissociation-sensitive Molecules

DOI: 10.3847/1538-4357/AC80FF

Saito et al 2022b, ApJL, 935, 155

#### The Kiloparsec-scale Neutral Atomic Carbon Outflow in the Nearby Type 2 Seyfert Galaxy NGC 1068: Evidence for Negative AGN Feedback

DOI: 10.3847/2041-8213/AC59AE

Saito et al 2022a, ApJL, 927, L32

#### PHANGS-ALMA: Arcsecond CO(2-1) Imaging of Nearby Star-forming Galaxies

DOI:10.3847/1538-4365/AC17F3

Leroy et al 2021, ApJS, 257, 43

#### New constraints on the 12CO(2-1)/(1-0) line ratio across nearby disc galaxies

DOI:10.1093/MNRAS/STAB859

den Brok et al. 2021, MNRAS, 504, 3, p3221-3245

#### The Physics at High Angular resolution in Nearby Galaxies (PHANGS) Surveys

DOI:10.18727/0722-6691/5151

Schinnerer et al. 2019, ESO Messenger Messenger, vol. 177, p. 36-41

## Talks and Posters

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### Talks:

#### Workshop: Puzzles of the Galactic Centre

TALK

Central Molecular Zones from a different Angle

05-07. Sept. 2022

Heidelberg, Germany

#### From Stars to Galaxies II

TALK - POSTER PRIZE

Molecular Gas Outflows and Gas Morphology in Nearby Main-Sequence Galaxies

20.-24. Jun. 2022

Gothenburg, Sweden

#### Retreat of the MPIA Galaxy and Cosmology department 2022

TALK

Fine look at molecular gas and star-formation in nearby galaxies

07.-10.Feb. 2022

Ringberg, Germany

#### IRAM: 50th Young European Radio Astronomers Conference

TALK

Molecular gas outflows and gas morphology in nearby main-sequence galaxies

24-27. Aug. 2021

Virtual

### Posters:

#### From Stars to Galaxies II

POSTER

Molecular Gas Outflows and Gas Morphology in Nearby Main-Sequence Galaxies

20.-24. Jun. 2022

Gothenburg, Sweden

#### IRAM: Multi-line diagnostics of the Interstellar Medium

POSTER

The First Cloud-by-Cloud Dense Gas Map of an External Galaxy

04.-06.Apr. 2022

Nice, France

**Physics of Star formation: From Milky Way clouds to protostellar disks**

POSTER

The Abundance of Nuclear Molecular Outflows in Nearby Star-forming Galaxies

01.-03.Dec. 2020

*Virtual*