CAMK 2025 report
Tomek Kamiński
Circumstellar matter & mergers

Review:

Red novae, stellar mergers in binary and triple systems, and bipolar nebulae
Kamiński, Tomek; 2025·IAU Symposium **new invite to A&A Reviews**

Global collaborations:

VVV-WIT-13: An eruptive young star with cool molecular features
Guo, Z.; Lucas, P.; Yurchenko, S. N.; Kamiński, T.; *and 26 more*
2025/11 Astronomy and Astrophysics

The Nearby Evolved Stars Survey: III. First data release of JCMT CO-line observations
Wallström, S. H. J.; Scicluna, P.; Srinivasan, S.; Wouterloot, J. G. A.; *and 35 more*
2025/12 · Astronomy and Astrophysics

"Local" collabs:

Discovery of ionized circumstellar gas emission around the long-period Cepheid ℓ Carinae with ALMA
Hocdé, V.; Kamiński, T.; Lewis, M.; Nardetto, N.; *and 2 more*
2025/02 ·Astronomy and Astrophysics

Circumbinary disc interactions and stochastic dust obscuration in the post-asymptotic-giant-branch binary HD 213985
Iłkiewicz, Krystian; Planquart, Léa; Kamiński, Tomek; Van Winckel, Hans;
2025/06·Astronomy and Astrophysics

PhD students collabs:

OGLE-2002-BLG-360: A dusty anomaly among red nova remnants
Steinmetz, T.; Kamiński, T.; Melis, C.; Blagorodnova, N.; *and 3 more*
2025/07·Astronomy and Astrophysics **CAMK PhD final stages**

Constraining the physical structure of the circumstellar environment of V838 Monocerotis remnant
Zain Mobeen, Muhammad; Kamiński, Tomasz; Potter, Stephen;
2025/06 in review ApJ **CAMK PhD defended**

3D hydrodynamic simulations of white dwarf-main-sequence star collisions - II. Off-centre collisions
van der Merwe, C. J. T.; Mohamed, S. S.; José, J.; Shara, M. M.; Kamiński, Tomasz
2025/04·MNRAS **SAAO, PhD thesis ready**

⬅️red novae

⬅️YSO

⬅️AGBs

⬅️cepheids

⬅️post-AGB

⬅️ red nova

⬅️ mergers

⬅️ collisions

Instrumentation & white papers

Atacama Large Aperture Submillimeter Telescope (AtLAST) science: Probing the transient and time-variable sky
Orlowski-Scherer, John; Maccarone, Thomas; Bright, Joe; Kamiński, Tomasz; *and 24 more*
2025/01· Open Research Europe

ESO Expanding Horizons White Papers:
Dynamical binary interactions in the 2040s
Blagorodnova, Nadejda; Pejcha, Ondřej; Kamiński, Tomek; Cai, Yongzhi; *and 14 more* 2025/12

ALMA2040 white papers (active co-author or lead author):

- *Understanding cosmic explosions*
- *Mm-jets in the multi-messenger era*
- *Evolved stars, multiplicity and planets*
- *Evolved Stars: Dust formation/mass loss*
- *AtLast transients follow-ups*

Selected active duties:

Polish representative in ESO's STC (+ESAC, +Dev. Studies)
with CAMK we will be organising ESO workshop in Toruń

I am the only represent. of CAMK in the Polish LSST-Rubin
let me know if you're interested in joining

6821 - Dust, gas, and ice formed before and after stellar mergers

Cycle: 4, Proposal Category: GO

INVESTIGATORS

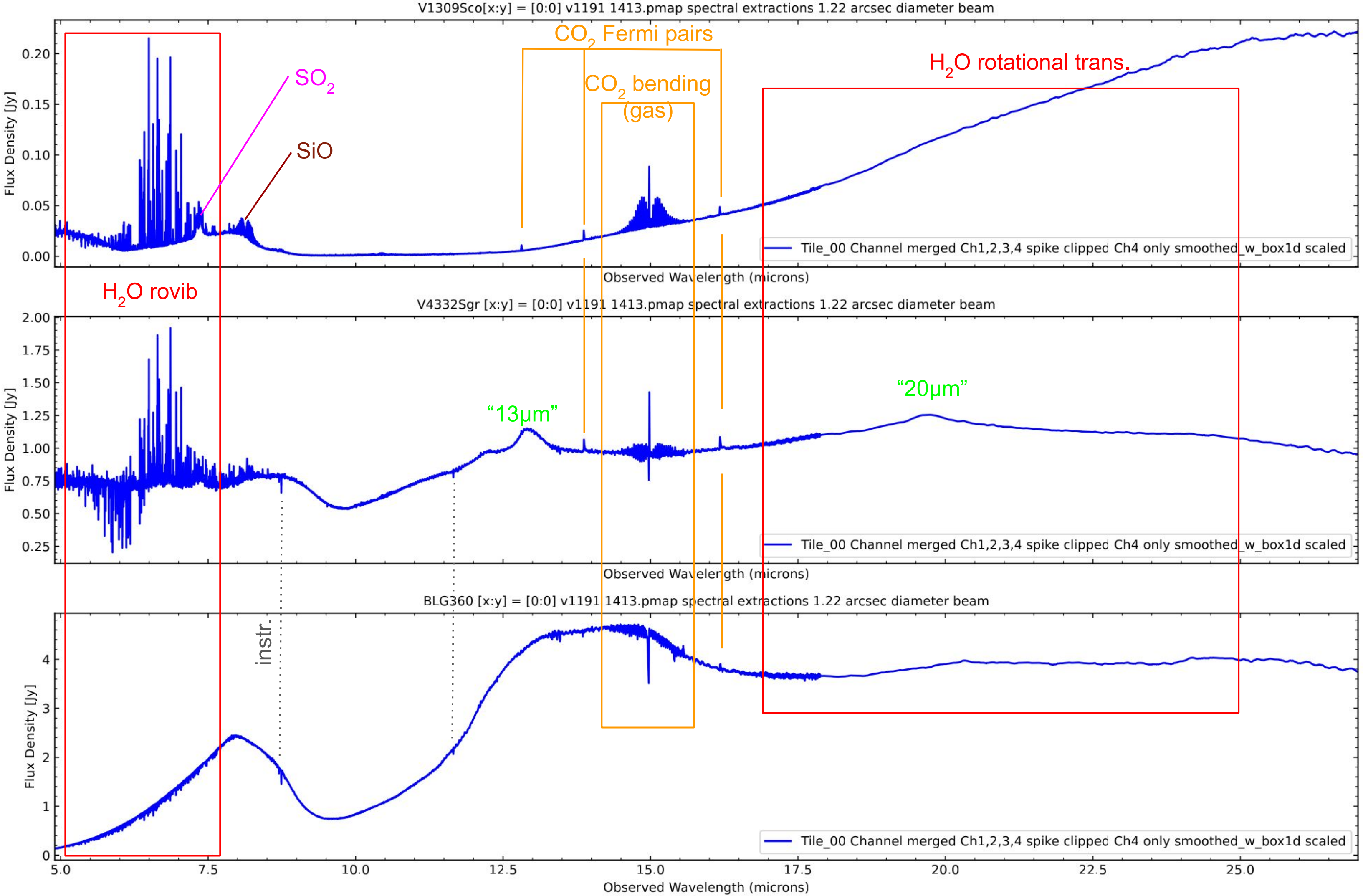
Name	*Institution*
Dr. Tomasz Kaminski (PI) (ESA Member)	**Nicolaus Copernicus Astronomical Center**
Dr. Chick Woodward (CoI) (US Admin CoI)	University of Minnesota - Twin Cities
Mr. Thomas Steinmetz (CoI) (ESA Member)	Nicolaus Copernicus Astronomical Center
Dr. Carl Melis (CoI)	University of California - San Diego
Prof. Karl M. Menten (CoI) (ESA Member)	Max Planck Institut fur Radioastronomie
Prof. Aneurin Evans (CoI) (ESA Member)	University of Keele
Mr. Muhammad Zain Mobeen (CoI) (ESA Member)	Nicolaus Copernicus Astronomical Center
Prof. Dipankar P K Banerjee (CoI)	CSIR - National Physical Laboratory
Dr. Marie Van de Sande (CoI) (ESA Member)	Universiteit Leiden

Visit Status Report for JWST 6821

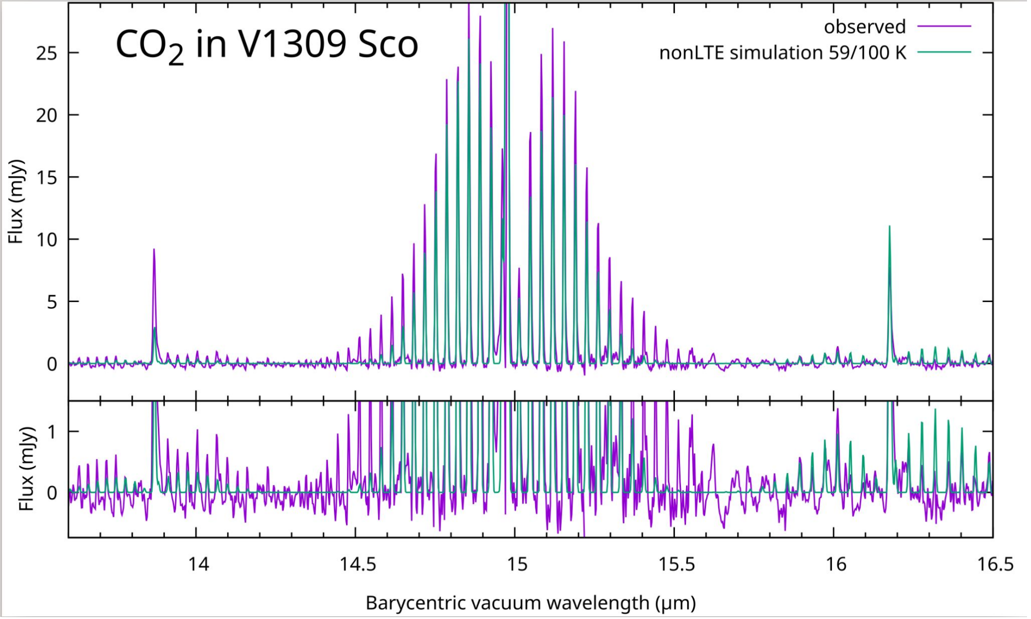
Tue Feb 03 11:49:49 EST 2026

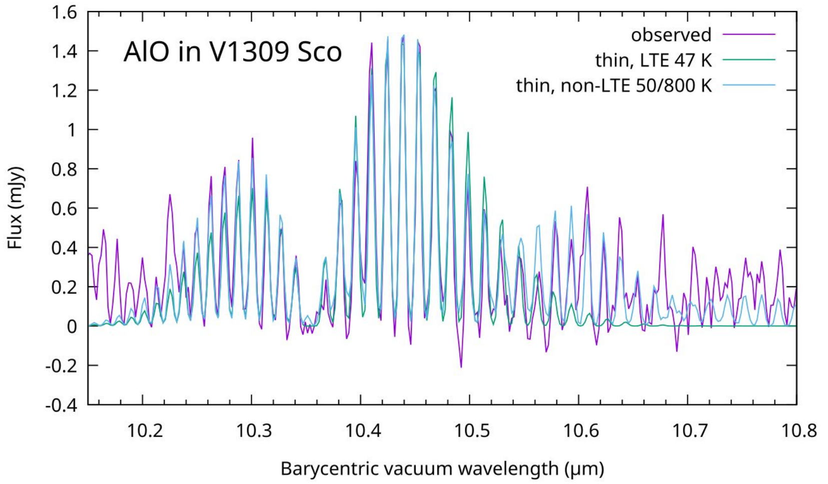
Observation	Visit	Status	Target(s)	Templates	Hours	Start Time (UT)	End Time (UT)
6	1	Archived	BLG360-BACKGROUND	MIRI Medium Resolution Spectroscopy	0.76	Sep 7, 2025 10:29:59	Sep 7, 2025 11:27:55
3	1	Archived	EWS-2002-BLG-360	MIRI Medium Resolution Spectroscopy	0.99	Sep 7, 2025 11:27:59	Sep 7, 2025 12:22:55
5	1	Archived	V1309SCO-BACKGROUND	MIRI Medium Resolution Spectroscopy	1.06	Sep 8, 2025 20:32:55	Sep 8, 2025 21:59:05
2	1	Archived	V-V1309-SCO	MIRI Medium Resolution Spectroscopy	1.42	Sep 8, 2025 21:59:09	Sep 8, 2025 23:12:45
4	1	Archived	V4332SGR-BACKGROUND	MIRI Medium Resolution Spectroscopy	1.21	Sep 29, 2025 17:55:15	Sep 29, 2025 18:52:16
1	1	Archived	V-V4332-SGR	MIRI Medium Resolution Spectroscopy	0.92	Sep 29, 2025 18:52:20	Sep 29, 2025 19:43:44

Observation	Visit	Status	Target(s)	Templates	Hours	Plan Windows
7	1	Implementation	V4332-SGR-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	1.10	Aug 20, 2026 - Oct 7, 2026 (2026.232 - 2026.280)
8	1	Implementation	V1309SCO-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	1.23	Aug 7, 2026 - Sep 21, 2026 (2026.219 - 2026.264)
9	1	Implementation	BLG360-NIRSPEC	NIRSpec Fixed Slit Spectroscopy	0.82	Mar 15, 2026 - May 4, 2026 (2026.074 - 2026.124)



V1309Sco[x:y] = [0:0] v1191 1413.pmap spectral extractions 1.22 arcsec diameter beam
CO2 Fermi pairs
CO2 bending (gas)
H2O rotational trans.
SO2
SiO
H2O rovib
Flux Density [Jy]
Tile_00 Channel merged Ch1,2,3,4 spike clipped Ch4 only smoothed_w_box1d scaled
Observed Wavelength (microns)
V4332Sgr [x:y] = [0:0] v1191 1413.pmap spectral extractions 1.22 arcsec diameter beam
“13μm”
“20μm”
Flux Density [Jy]
Tile_00 Channel merged Ch1,2,3,4 spike clipped Ch4 only smoothed_w_box1d scaled
Observed Wavelength (microns)
BLG360 [x:y] = [0:0] v1191 1413.pmap spectral extractions 1.22 arcsec diameter beam
instr.
Flux Density [Jy]
Tile_00 Channel merged Ch1,2,3,4 spike clipped Ch4 only smoothed_w_box1d scaled
Observed Wavelength (microns)





JWST-MIRI spectra are amazing
but non-LTE effects are real pain