

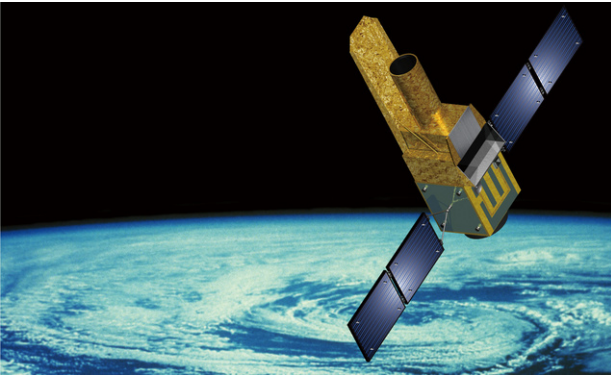
JASMINE mission

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and

JASMINE team



JASMINE (Japan Astrometry Satellite Mission for INfrared Exploration)
selected for JAXA Science Mission M-Class #3 (planned launch in 2020s)
NIR astrometry and time-series NIR photometry

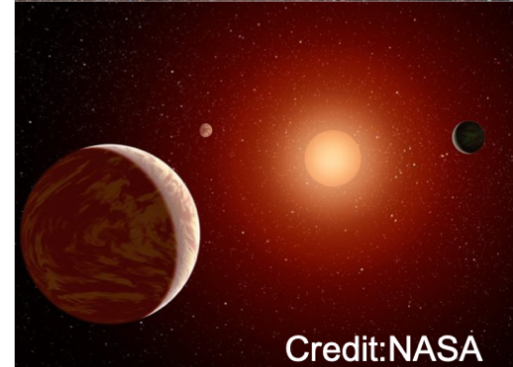


Two main science goals

- Galactic Archaeology
 - To reveal the Milky Way's central core structure and its formation history
 - To explore the formation history of the Milky Way structures, like the bar, which triggered the radial migration of the Sun
- ⇐ NIR astrometry of the Galactic centre

Unexplored territory of the ESA Gaia mission, but NIR MOS (MUSE, SDSS-V, Subaru/PFS) will provide spec data in late 2020s!

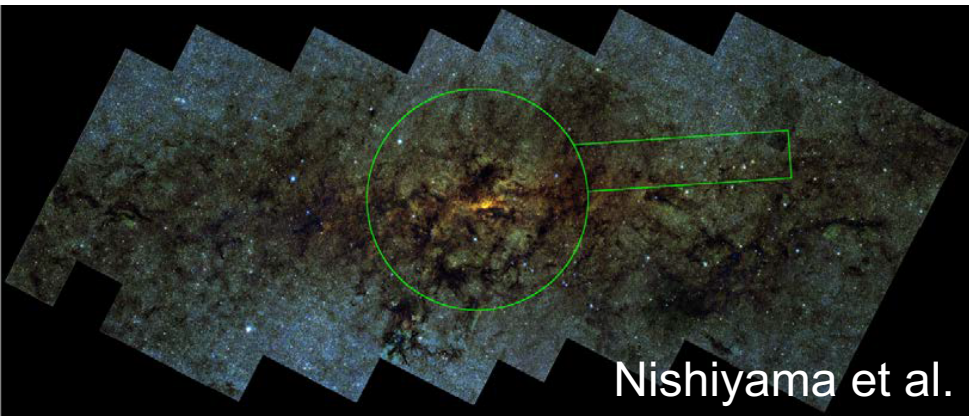
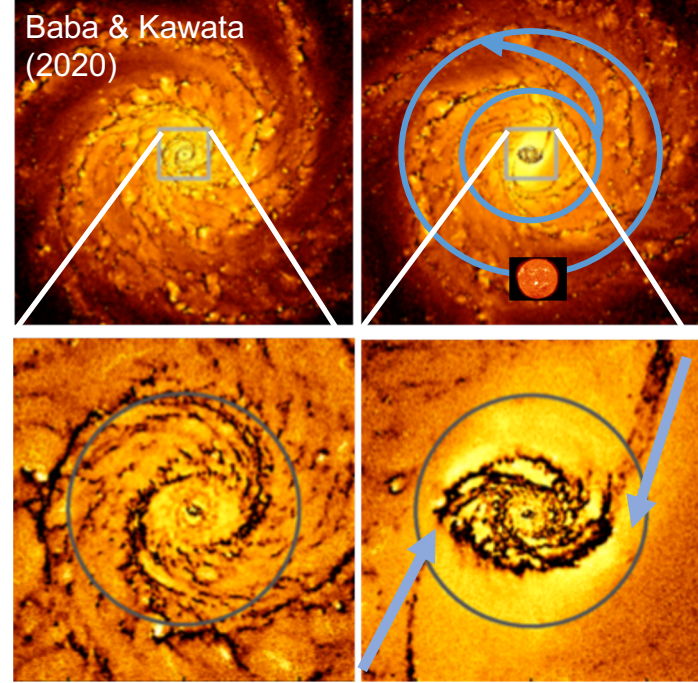
- Exo-JASMINE
 - To discover Earth-like habitable exoplanets
- ⇐ NIR time-series photometry of M-dwarfs
- Target for JWST, ARIEL spec follow-up!**



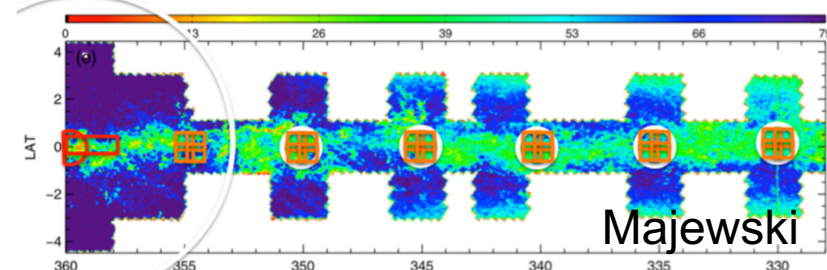
NAOJ support: approved by the NAOJ Advisory WG!

Galactic Centre Survey (Rgc~200 pc)

- Main astrometry survey (spring, fall)
- Precise astrometry, $H_w < 12.5$ (15) mag, 25 (125) μas ($V_{\text{err}} < 5$ km/s, $N \sim 10^5$) \Rightarrow Galactic centre structure
The age of the nuclear stellar disk = The bar age
- 100 min cadence photometry
- Serendipitous sciences
 - (IM)BHs, microlensing, binary
 - Ultra light DM, soliton core
 - High velocity stars
 - Solar system objects



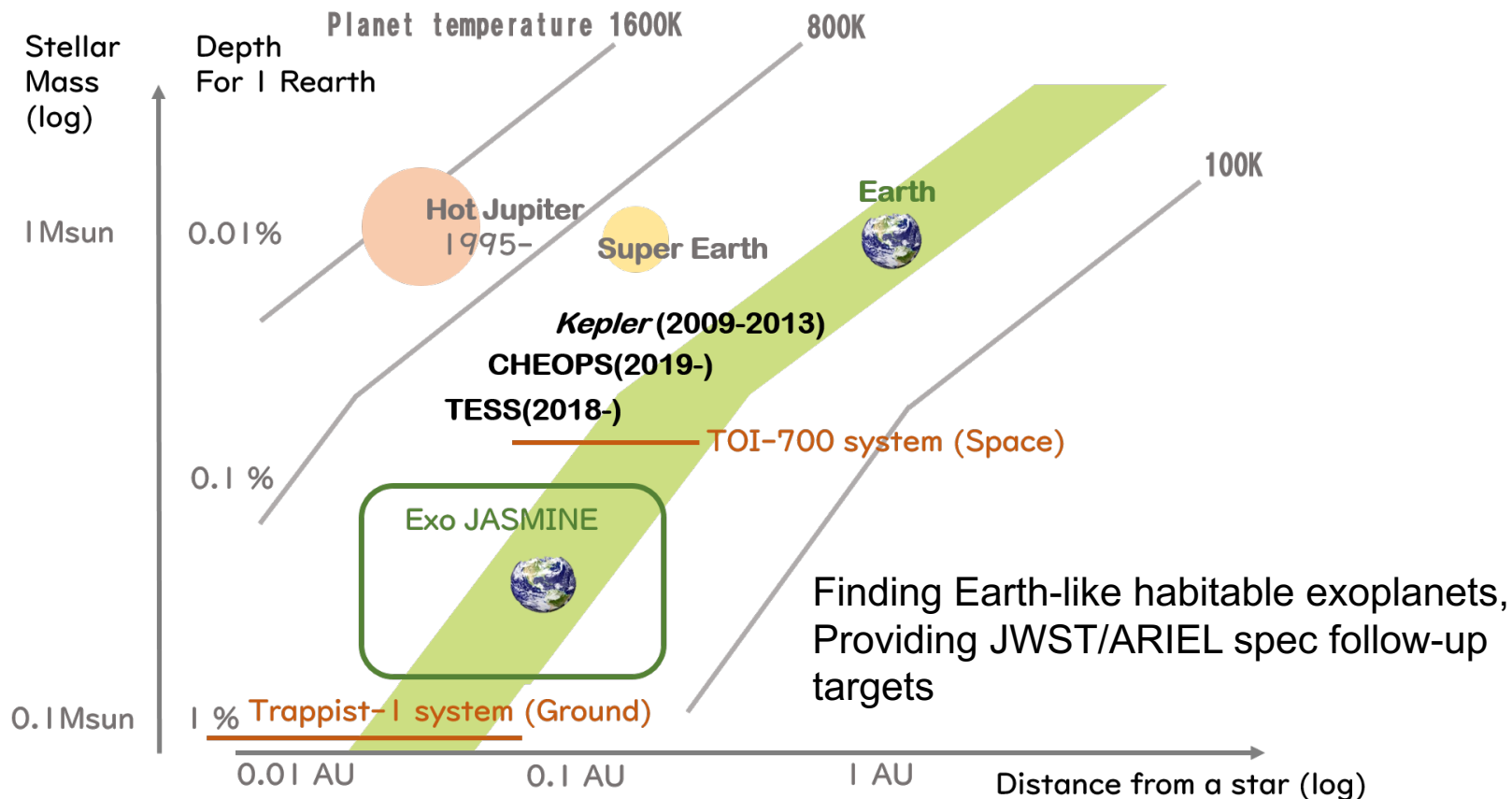
+ Galactic Mid-Plane Survey
spirals, radial migration, SF regions



Exo-JASMINE (M-dwarf transit survey)

Kawahara, Masuda, Fukui, Hirano, Kotani, Kodama, Kuzuhara, Yamada

Exo-JASMINE Team



JASMINE Consortium (JC)

To support the JASMINE project team's data analysis
and lead the science validation + outreach

Maximising the impact of the JASMINE mission to scientists and public!

- WG-A : Data Analysis
end-2-end simulation
- WG-B: Science Validation and Preparation
science preparation using simulation data
- WG-C: Outreach

Please join! You can write papers even before launch!

Before launch: simulation data access, survey programme design

After launch: pre-release data access for validation, co-authorship of JASMINE data release papers.

Kick-off meeting held on 26 Aug. 2019. About 50 scientist signed up!

2nd meeting : Announcement will be soon.

White Paper coming soon with international collaborators (USA, ESA, Australia)

