



Elizabeth Tasker

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宇宙航空研究開発機構(JAXA)

神奈川県相模原市中央区由野台3-1-1

D.o.B: 12th July 1980

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Employment & Education

[2016 -] 宇宙科学研究所 (ISAS) 宇宙航空研究開発機構 (JAXA)

Associate Professor (准教授)

[2011 - 2016] 北海道大学 理学研究院

Assistant Professor (助教)

[2009 - 2011] McMaster University, Canada

Canadian Institute for Theoretical Astrophysics (CITA) National Postdoctoral Fellow

[2006 - 2009] University of Florida, USA

Postdoctoral Research Fellow in Theoretical Astrophysics

[2005 - 2006] Columbia University in New York City, USA

Postdoctoral Research Assistant

[2002 - 2005] University of Oxford, UK

Ph.D. with thesis title 'Numerical Simulations of the Formation and Evolution of Galaxies'

Recent Papers & Book contributions

[2022] Hayabusa2 Asteroid Sample Return Mission: C26 Public relations and outreach from the Hayabusa2 Project, Yoshikawa, **Tasker**, Hosoda, Matsuoka, Yokota, Nakazawa, Tsuda, Elsevier DOI: 10.1016/B978-0-323-99731-7.00026-X

[2021] Sample Return Missions: C6 Upcoming Missions, **Tasker** & Lunine, Elsevier DOI: 10.1016/B978-0-12-818330-4.00010-0

[2020] "Estimating Planetary Mass with Deep Learning", *The Astronomical Journal*, **Tasker**, Laneuville & Guttenberg, DOI: 10.1017/S1473550419000326

[2020] "Earth-Like: an education & outreach tool for exploring the diversity of planets like our own", *International Journal of Astrobiology*, **Tasker**, Ishimaru, Guttenberg & Foriel, DOI: 10.1017/S1473550419000326

[2019] "Segmentation Convolution Neural Networks for Automatic Crater Detection on Mars", *IEEE Journal of Deleted Topics in Applied Earth Observations and Remote Sensing*, DeLatte, Crites, Guttenberg, **Tasker** & Yairi, DOI: 10.1109/JSTARS.2019.2918302

Teaching Awards

[2016, 2015 & 2014] Hokkaido University President's Award for Education.

[2012 & 2013] Excellent Teacher Award.

Grants

[2016 - 2020] Grants-in-Aid for Scientific Research (Kakenhi / 科研費):

Young Scientist B / 若手研究(B).

Award 4,160,000 yen.

[2014] Suhara Memorial Foundation / 寿原記念財団.

Award 1,000,000 yen.

[2013 - 2016] Ministry of Education Culture, Sports, Science & Technology, Program to Disseminate Tenure-Track System / 文部科学省 「テニュアトラック普及・定着事業」

Award 15 million yen / year

Books (lead author / editor)

[2020] "Planetary Diversity", AAS-IOP Astronomy (edited volume), **Tasker**, ISBN: 9780750321402

[2017] "The Planet Factory", *Bloomsbury Publishing House*, **Tasker**, ISBN: 9781472917744

Selected Outreach Publications

[2019] "Unveiling the secrets of a habitable world with JAXA's small-body missions", *Nature Astronomy*, Fujimoto & **Tasker**

[2018] "Visiting an asteroid to find out how life began", *Room Magazine*, Yoshikawa & **Tasker**.

[2018] "Bringing home a piece of our past", *Nature Astronomy*, **Tasker**

[2016] "New Missions Mine Asteroid Secrets", *Astronomy Magazine*, **Tasker**

[2015] "Stars of the Dead", *Scientific American*, Symons & **Tasker**

Selected Recent Research & Outreach Talks

[2022] "Alien Landscapes", Forming and Exploring Habitable Worlds, Edinburgh

[2022] "Virtually Real: Outreach and Networking in virtual reality", Communicating Astronomy to the Public (CAP), Sydney

[2021] "How unlike Earth are Earth-like planets?", American Geophysical Union (AGU)

[2020] "In search of a second Earth", Geek Picnic, Moscow, Russia (remote presentation due to COVID-19).

[2019] "Homes away from Home", Perimeter Institute for Theoretical Physics, Canada