

## Symposium on Space Weather and Habitable Zones June 27<sup>th</sup> & 28<sup>th</sup> Kyoto

Stellar activities including stellar superflares may have severe impacts on associated planetary systems, likewise, Solar activity has a strong influence on terrestrial activities. In addition to the traditional habitable zones based on the normal radiation flux from the host star, new habitable zone definitions should incorporate stellar flare activities, which may disturb planets located in the habitable zone through high energy particles.

An integrated database of confirmed exoplanets has been developed and launched as "ExoKyoto," for the purpose of better comprehension of exoplanetary systems in different star systems. Each hoststar can be referred to in the catalogue with its habitable zone calculated, based on the observed/estimated star parameters. Stellar flare and its impacts on planetary system are to be included into ExoKyoto and launched reflecting current available knowledge and information.

Symposium on Space Weather and Habitable Zones - June 27<sup>th</sup> & 28<sup>th</sup> Kyoto

This symposium aims to identify state-of-arts research outcomes on these topics with invited speaker Dr. Vladimir Airapetian.

### Registration:

Please send e-mail to <envhazards at gsais.kyoto-u.ac.jp> with your name, affiliation, specification and contact address (e-mail).

### Venue:

Kyoto University Higashi-Ichijo-Kan Shishukan Hall (B1) / Main Conference Room (1F)

Yoshida-nakaadachicho 1, Sakyo-ku, Kyoto, 606-8306, Japan <https://www.gsais.kyoto-u.ac.jp/access>

Imaginary Flare Star

### Program Schedule:

Credit Haruka Inagaki SGH Moriyama High School

#### June 27<sup>th</sup> (Tuesday)

[Morning] Invited Lecture  
10:00-11:30  
Vladimir S. Airapetian (NASA GSFC)  
"Space weather affected habitable zones"

[Afternoon]  
13:30-14:00  
Hiroyuki Maehara (NAOJ)  
"Superflares found from Kepler data"

14:00-14:30  
Yuta Notsu (Kyoto University)  
"Spectroscopic observations of superflare stars"

14:30-15:00  
Daisaku Nogami (Kyoto University)  
"Future studies of superflares with Kyoto University Okayama new 3.8m telescope"

15:00-17:00  
Discussion

#### June 28<sup>th</sup> (Wednesday)

[Morning]  
10:00-10:30  
Kazunari Shibata (Kyoto University)  
"Superflare CMEs and their potential impacts on planets"

10:30-11:00  
Kai Ikuta (Kyoto University)  
"Bayesian modeling of Kepler light curves of superflare stars"

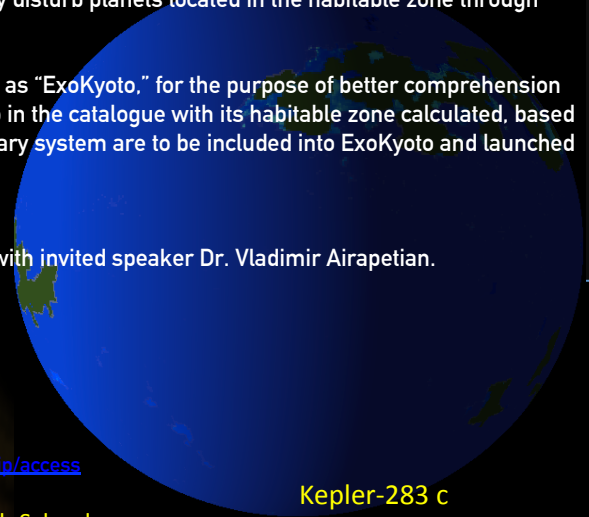
11:00-11:30  
Kosuke Namekata (Kyoto University)  
"Solar and stellar white light flares"

[Afternoon]  
13:00-14:00  
Yosuke Yamashiki (Kyoto University)  
"Development of ExoKyoto and its application into flare star"

14:00-14:30  
Hiroaki Isobe (Kyoto University)  
"Evidence of superflares on the past Sun"

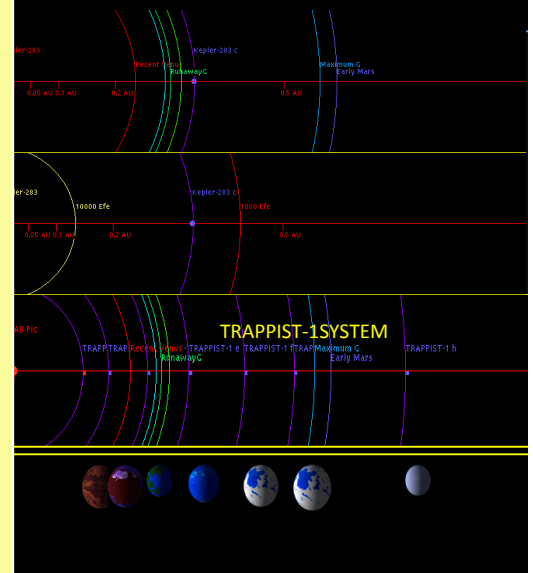
14:30-15:00  
Takanori Sasaki (Kyoto University)  
"Development of Habitable Planetary system"

15:00-17:00  
V. S. Airapetian and All  
"Planetary science and overall Discussion"



Kepler-283 c

Flare observed Habitable planet



宇宙ユニット



京都大学 大学院 総合生存学館

思修館

京都大学 大学院理学研究科附属天文台

Kwasan and Hida Observatories  
Graduate School of Science, Kyoto University, Japan



KYOTO UNIVERSITY

Organizers: Kyoto University Unit of Synergetic Studies for Space/  
Graduate School of Advanced Integrated Studies in Human Survivability (GSAIS) /  
Kwasan and Hida Observatories, Graduate School of Science, Kyoto University