

NAOC and Caltech Bilateral Workshop on Transient Science and Follow-up Observations (Online)

Date and Time: Feb. 28, 2023. 8:00-11:00am, BJT/ Feb. 27, 2023. 4:00-7:00pm PT
Mar. 01, 2023. 8:00-11:00am, BJT/ Feb. 28, 2023. 4:00-7:00pm PT

ZOOM link:

<https://zoom.us/j/7129654241?pwd=dGxId3B6RTFYbG1GQkNDaFdVZjI1Zz09>

ZOOM Meeting ID: 712 965 4241

Password: 02280301

Participant Registration at: <http://www.deepsheet.net/U/url/ue9idm5b>

Motivation & Objective:

Time Domain Astronomy (TDA) is undergoing a rapid growth in recent years, with several ongoing and upcoming large scale surveys and space missions. Timely follow-up observations are a critical part of the overall science endeavor. This mini-workshop is the first of a series, designed with the following goals:

1. To bring updates on forthcoming Chinese sky survey missions and spectroscopy observing capabilities of Caltech facilities
2. To define the requirements for time-sensitive observations for potential science programs
3. To explore mechanisms to implement such observations to maximize science returns
4. To discuss potential mutual transient science interests from both communities

Advisory Committee:

Gongbo Zhao (NAOC), Suijian Xue (NAOC), Luis Ho (PKU-KIAA); Gu QiuSheng (U. of Nanjing); Jonas Zmuidzinas, (Caltech) Shri Kulkarni (Caltech), Mansi Kasliwal (Caltech)

Science Organizing Committee:

Jifeng Liu (NAOC), Chichuan Jin (NAOC), Jianyan Wei(NAOC), Yanmei Chen (U. of Nanjing), Jianfeng Wu (XMU), Lin Yan (Caltech), Mansi Kasliwal (Caltech)

Program & Agenda:

Day 1

Session 1: Missions & projects; Chair: Lin Yan (Caltech)

- AM 8:00-8:10/PM 4:00-4:10 Opening remarks 10 (Jonas Zmuidzinas, Jifeng Liu, Suijian Xue)
- AM 8:10-8:40/PM 4:10-4:40 The science potential and follow-up requirement of the Einstein Probe mission, Weimin Yuan (NAOC)

- AM 8:40-9:10/PM 4:40-5:10 The science potential and follow-up requirement of SVOM mission, Liping Xin (NAOC)
- AM 9:10-9:50/PM 5:10-5:50 Zwicky Transient Facility and some science results: Yuhang Yao (Caltech) & Yujing Qin (Caltech)
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- AM 9:50-10:10/PM 5:50-6:10 Break
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- AM 10:10-10:30/PM 6:10-6:30 NGPS update, Christoffer Fremling (Caltech)
- AM 10:30 – 11:00/PM 6:30 – 7:00 Discussion: Science opportunities and P200 capabilities Panel: Zmuidzinas, Kasliwal, Boden, Xue, Yuan, Wei + all participants
- Adjourn

Day 2, Chair: Suijian Xue (NAOC)

Session 2: Time Domain & Transient Science

- AM 8:00-8:20/PM 4:00-4:20 Rapid Optical Spectroscopic Follow-up Observations of FRB from FAST, Chao-wei Tsai (NAOC)
- AM 8:20-8:40/PM 4:20-4:40 Multi-channel Photometric Survey Telescope (Mephisto) and Potential Follow-up Observations, Xiang-kun Liu (SWIFAR)
- AM 8:40-9:00/PM 4:40-5:00 The Opportunities and Challenges of Studying Tidal Disruption Events with 2.5-meter Wide Field Survey Telescope, Ning Jiang (USTC)
- AM 9:00-9:20/PM 5:00 – 5:20 Time-domain Projects at Tsinghua University and the Science Highlights, Xiaofeng Wang (THU)
- AM 9:20 – 9:40/PM 5:20 – 5:40 ToO observations from 2.4-meter telescope at Yunnan Observatory, Jirong Mao (YNAO)
- AM 9:40 – 9:50/PM 5:40 – 5:50pm Break

Session 3: Implementing Time Sensitive Observations;

- AM 9:50 – 10:05/PM 5:50 – 6:05 How Caltech/ZTF coordinates their TDA follow-up programs Christoffer Fremling (Caltech)
- AM 10:05 – 10:30/PM 6:05 – 6:30 Caltech Target Opportunity Programs; Andy Boden (Caltech)
- AM 10:30 – 11:00/PM 6:30 – 7:00 Discussions: moderators: Kasliwal (Caltech) and Jin (NAOC)