

# Subaru Telescope International Partnership Workshop – Summary Report

Date: 12 / 03 / 2018

To: The Director of the Subaru Telescope

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| Workshop chair person  | Name  | Fumi Yoshida   |        |  |
|  | Affiliation<br>Job Title  | Planetary Exploration Research Center, Chiba Institute of Technology<br>Research Scientist |        |  |
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| Workshop title   | Subaru Workshop on Small Solar System Bodies  |  |        |  |
| Date   | 11 / 19 / 2018 – 11 / 21 / 2018   |  |        |  |
| Venue (address)  | Center for Planetary Science, Integrated Research Center of Kobe University, 7-1-48, Minatojima-Minamimachi, Chuo-Ku, Kobe 650-0047, Japan  |  |        |  |
| Number of participants   | 25  |  |        |  |
| Workshop overview  | <p>The goal of this workshop was to coordinate an international collaboration on the observational study of small Solar System bodies (SSSBs) to write an intensive program of the Subaru Telescope within the framework of EAO Shared Time. The Hyper Suprime-Cam (HSC) of the Subaru Telescope is a powerful instrument for survey of SSSBs, and the participants of this workshop included who have utilized data obtained by the SSP-HSC survey and published results. However, the cadence of this survey is not optimized for SSSBs search and its merit for the SSSB science is limited, thus an independent survey optimized for SSSBs has been highly demanded. On the other hand, a group of researchers in SSSB science from Canada and Taiwan have recently completed a SSSB survey called OSSOS (the Outer Solar System Origins Survey) with the 3.6m Canada-France-Hawaii Telescope with great success. Detection of more distant faint objects is possible with the use of HSC of the Subaru Telescope.</p> <p>At this workshop, researchers with experience in HSC observation and members of the OSSOS survey got together to discuss and design a new survey with HSC optimized for SSSB science. Among the 22 onsite participants, 18 attended from the EAO counties (Taiwan, China, South Korea) or a country which is considering Subaru partnership (Canada). SOC members including three Japanese had several online preparatory meetings and discussed the agenda of the workshop, and prepare science cases for key observation targets. Then, most of the time of the workshop was spent for discussion on survey planning. We plan to continue discussion on the preparation for a proposal.</p> <p>We thank the Subaru Telescope of the National Astronomical Observatory of Japan for the support of this truly fruitful workshop.</p> |  |        |  |
| Discussion on Subaru international operation during the workshop | <p>Through the discussion during the workshop, we learned that the combination of the previous experience in HSC and OSSOS observations allows us to design a unique survey of SSSBs that can significantly advance our understanding of the origin and evolution of the Solar System. The EAO Shared Time will definitely promote such collaboration, and we hope to be a successful example of such a collaboration. We also hope that Canada will become a partnership country to further advance the collaboration.</p>   |  |        |  |
| Comments on the Subaru WS support program (if any)               |   |  |        |  |

Note 1: You can adjust the size of the boxes as you want, but the report must be within 1-page.

Note 2: **Please attach the final WS program and participant lists when submitting this report.**