

ISSI-Beijing Forum

“Roads towards Sample Return from Comets and Asteroids”

January 17th to 18th, 2018

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January 17th

Earth Hall

08:30-09:00	Registration	
09:00-09:15	Welcome, forum objectives, logical structure and expected outputs	Michel Blanc, Executive director
09:15-09:30	Introduction to the Chinese Space Science program, expectations on forum achievements	Prof. WU Ji, NSSC/CAS

Session 1	Science drivers	Chairperson: Ian Franchi
9:30-10:00	Scientific objectives of sample return missions from small bodies and on-going international efforts (science)	Antonella Barucci, Jeremie Lasue, Michel Blanc
10:00-10:20	Key results from Stardust	Michael Zolensky
10:20-10:40	Key results from Hayabusa	Akira Tsuchiyama
10:40-11:10	<i>Coffee break, Group Photo</i>	

Key science drivers for new space missions:

11:10-11:25	Solar System origin and formation scenarios	Shogo Tachibana
11:25-11:40	Volatile content	Bernard Marty
11:40-11:55	Organic content	Zita Martins
11:55-12:10	Astrobiology	John Brucato
12:10-12:30	General discussion: science drivers and mission targets	All
12:30-13:30	<i>Lunch</i>	

Session 2	Future Missions	Chairperson: Holger Sierks
Missions already decided and in preparation:		
13:30-13:45	Hayabusa-2 (JAXA)	Makoto Yoshikawa
13:45-14:00	MMX (JAXA)	Kiyoshi Kumamoto (remotely)
14:00-14:15	OSIRIS-Rex (NASA)	Antonella Barucci

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14:15-14:30	DESTINY+	Tomoko Arai (remotely)
New mission scenarios under study:		
14:30-14:50	Trojan SPS Explorer (JAXA)	Tatsuaki Okada
14:50-15:10	Small body Exploration Mission (CAST)	Jiang-chuan Huang
15:10-15:30	NEA Sample Return (IGG/CAS)	Yangting Lin
15:30-15:50	Sample Return Mission from a NEO binary	Jianghui Ji
15:50-16:10	Deimos and Sun-Mars L4/L5 Asteroids Group Sample Return	Jinsong Ping
16:10-16:45	<i>Coffee break</i>	
16:45-17:05	Summary of cometary science ISSI workshop (From Bern by skype)	Nicolas Thomas
17:05-18:00	General discussion: priority mission scenarios and how they match the science goals	All
18:00	<i>Welcome reception – inauguration of new ISSI- Beijing premises and painting collection.</i>	
19:15	<i>Forum dinner</i>	

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Session 3	Science + Technology requirements	Chairperson: Jeremie Lasue
09:00-09:15	Lessons from previous missions (synthesis)	Marcello Fulchignoni
09:15-09:35	Lessons from Rosetta and Philae (Science)	Holger Sierks, Wlodek Kofman
09:35-09:50	Sampling constraints and operations near surface	Michael Küppers
09:50-10:05	Review of available technologies and lessons from the Marco-Polo-R/ESA study	Ian Franchi
10:05-10:20	Technologies for Philae and Mascot	Jens Biele
10:20-10:35	Review of technology needs	Pierre Bousquet
10:35-10:50	Orbit dynamics	Dong Qiao
10:50-11:20	<i>Coffee break</i>	
11:20-11:35	Constellation of Heterogeneous NEA Surveyors	Zhuoxi Huo

Needed technologies:

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11:35-11:50	Sampling techniques (HK and ESA)	T.C. Ng
11:50-12:05	Sampling techniques for Hayabusa-2	Shogo Tachibana
12:05-12:20	Potential use of minisat/nanosat	Daniel Hestroffer, Marco Agnan
12:20-12:40	Overview of technologies for sample return	Manuel Grande, Wlodek Kofman
12:40-14:00 <i>Lunch</i>		
Session 4	Final synthesis	Chairperson: M. Fujimoto
14:00-14:30	Tentative conclusions by a “moderator”	Wing Ip
14:30-15:30	General discussion: what are the most appealing “Roads” to the next mission(s)?	All
15:30-16:00 <i>Coffee break</i>		
16:00-17:00	Final discussion and conclusions	Session chair + all
17:30	End of general meeting	

January 19th

Earth Hall

09:00-11:00	Conveners’ meeting: drawing conclusions and actions	Chairperson: Michel Blanc
11:00	<i>End of meeting</i>	