

ISSI-BJ Workshop on *Gamma-Ray Bursts: a tool to explore the young Universe*

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13-17 April 2015

MONDAY 13 April, 2015

Notice: All presentations are 30' slots including time for questions

09:00-09:30	Registration in ISSI-BJ Office	Room 357, Building B NSSC Campus
09:30-09:40	Welcome and Introduction to ISSI-BJ and workshop	Maurizio Falanga/Diego Götz
Session 1	Introduction	Chair: Maurizio Falanga
09:40-10:10	The current tools to study the young Universe	Michele Trenti
Session 2	Gamma-Ray Burst observational properties	Chair: Diego Götz
10:10-10:40	Prompt Emission	Julie McEnery
10:40-11:00	<i>Coffee break</i>	
11:00-11:30	Afterglow Emission	En Wei Liang
11:30-12:00	GRB Population Studies	Bing Zhang
12:00-12:30	Discussion	
12:30-14:00	<i>Lunch</i>	
Session 3	Gamma-Ray Bursts Models	Chair: Bing Zhang
14:00-14:30	Prompt Emission Physics	Frédéric Daigne
14:30-15:00	Afterglow Physics & Central Engine	Zi Gao Dai
15:00-16:00	<i>Coffee break</i>	
16:00-16:30	GRBs and multi-messengers	Peter Meszaros
16:30-17:00	Discussion	
17:00	<i>Welcome reception</i>	

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TUESDAY 14 April, 2015

Session 4 Progenitors

Chair: Neil Gehrels

09:00-09:30	Supernovae	Dong Xu
09:30-10:00	Collapsars	Norbert Langer
10:00-10:30	Wolf-Rayet stars	Paul Crowther

10:30-11:00 Coffee break

11:00-11:30	First stars theory: are they able to produce GRBs?	Volker Bromm
11:30-12:00	First stars signatures in GRB afterglow spectra	Kenji Toma
12:00-12:30	Short GRB progenitors	Andrew Levan

12:30-14:00 Lunch

14:00-14:30 Discussion

Session 5 Galaxy Formation and Evolution

Chair: Nial Tanvir

14:30-15:00	Galaxy formation at high redshift	Kentaro Nagamine
15:00-15:30	Global properties of star forming galaxies at $z < 4$	Emanuele Daddi

15:30-16:00 Coffee break

16:00-16:30	Star forming galaxies: linking SFR, stellar mass, metallicity, and their evolution	Naveen Reddy
16:30-17:00	Star forming galaxies at very high redshift ($z > 4$)	Linhua Jiang
17:00-17:30	Galactic Archeology: what can we learn from low redshift stellar populations?	Richard de Grijs
17:30-18:00	Discussion	

18:30 Dinner hosted by ISSI-BJ

WEDNESDAY 15 April, 2015

Session 6 GRB Host Galaxies

Chair: Emeric Le Floc'h

09:00-09:30 Population Properties

Daniel Perley

09:30-10:00 ISM Properties

Johan Fynbo

10:00-10:30 GRBs DLAs

Susanna Vergani

10:30-11:00 Coffee break

11:00-11:30 High z ($z>4$) GRB hosts observations

Nial Tanvir

11:30-12:00 GRB hosts populations simulations

Yuu Niino

12:00-12:30 Discussion

12:30-14:00 Lunch

14:00- Free time to visit the attractions of Beijing
Also: All ISSI-BJ facilities are available for small group discussions

THURSDAY 16 April, 2015

Session 7 Cosmology with Gamma-Ray Bursts

Chair: Zigao Dai

09:00-09:30	Cosmic star formation history	Ranga Ram Chary
09:30-10:00	Evolution of massive star properties with redshift	Sung-Chul Yoon
10:00-10:30	Gamma-Ray Bursts as cosmic SFR tracers	Brant Robertson

10:30-11:00 Coffee break

11:00-11:30	GRBs as tracers of the cosmic evolution of the Universe	Patrick Petitjean
11:30-12:00	Foreground absorbers	Antonino Cucchiara
12:00-12:30	GRBs as re-ionization probes	Tomonori Totani

12:30-13:30 Lunch

13:30-14:00	GRBs and cosmological parameters	Fa Yin Wang
14:00-14:30	Fundamental Physics tests with GRBs	Xue Feng Wu
14:30-15:00	THESEUS (<i>Future directions session</i>)	Lorenzo Amati
15:00-15:30	Discussion	

15:30-16:00 Coffee break

Young Scientists Session

Chair: Maurizio Falanga

16:00-16:30	Gamma-Ray Bursts with POLAR	Jianchao Sun
16:30-17:00	TDB	
17:00-17:30	TBD	

FRIDAY 17 April, 2015

Session 8 **Future directions**

Chair: Diego Götz

09:00-09:30	SVOM	Jian Yan Wei
09:30-10:00	Lobster Optics (Einstein Probe, etc.)	Wei Min Yuan
10:00-10:30	Square Kilometer Array	Giancarlo Ghirlanda
<i>10:30-11:00 Coffee break</i>		
11:00-11:30	WFIRST & JWST	Neil Gehrels
11:30-12:00	ELTs	Nial Tanvir (TBC)

Session 9 **Space Science Series of ISSI-BJ discussion**

12:00-12:45	Book discussion (authors Book plans, actions, schedule)	Maurizio Falanga/Diego Götz
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<i>12:45-14:00 Lunch</i>		
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End of the Workshop