## Program of the ExUL-2012 GRB Workshop

# "Gamma-Ray Bursts: Probing the Science, Progenitors and their Environment"

### Wednesday - June 13, 2012

08:30 – 10:00 Registration of the participants

10:00 – 10:10 Welcome by MSU representative – M.I. Panasyuk, Director of SINP MSU

10:10 – 10:20 Welcome by G.F. Smoot – the Leader of Extreme Universe Laboratory

10:20 – 11:10 "GRB observations to probe the evolution of the early Universe" (45'+5') (Anatoli Iyudin)

11:10 – 11:30 Coffee Break.

11:30 – 12:20 "Gamma-Ray Bursts in the Fermi Era"

(45'+5') Pawan Kumar

12:20 – 13:10 "Development of electron tracking Compton camera for both balloon and (45'+5') future satellite experiments of MeV gamma-ray astronomy" Toru Tanimori

13:10 - 14:30 Lunch

14:30 – 15:20 "Nuclear Gamma-Ray Astronomy – the Next Step"

(45'+5') Peter von Ballmoos

15:20 - 16:10 "All-Sky Monitor in Hard X-rays and Soft Gamma-Rays with Wide-Field (45'+5') Gamma-Ray Telescope "GAMMASCOPE"" Sergey Svertilov

16:30 – 17:00 – Coffee Break (free discussion of above talks).

17:00-17:50 "Past, present and future of hard X-ray/ $\gamma$ -ray measurements of Gamma-Ray (45'+5') Bursts polarization" Philippe Laurent

 $17:50-18:40\ \hbox{``Magneto-rotational Supernovae and Gamma-Ray Bursts''}$ 

(45'+5') Sergey Moiseenko, Gennady Bisnovatyi-Kogan

19:00 – 23:00 Welcome Party

#### Thursday June 14, 2012

09:00 – 09:50 "Aspherical Supernova Explosion and Gamma-Ray Bursts"

Shigehiro Nagataki (45'+5')

09:50 – 10:40 "Hyper-Supernovae produced by shocks"

Sergey Blinnikov (45'+5')

10:40 – 11:10 Coffee Break, and free discussion of above talks

11:10 – 12:00 "Type IIn supernovae"

Nikolai Chugai (45'+5')

12:00 - 12:50 "Properties of galaxies hosting gamma-ray bursts"

Sandra Savaglio (45'+5')

12:50 - 14:30 Lunch

14:30 – 15:20 "Cosmic gamma-ray bursts and soft gamma-repeaters studies with Ioffe Institute

"Konus" experiments" (45'+5')

Rafail Aptekar

15:20 – 16:10 "Afterglow observations with GROND"

Jochen Greiner (45'+5')

16:10 – 15:00 "What spectral lag can tell us about Gamma-Ray Bursts&"

Alexei Pozanenko (45'+5')

17:00 - 17:20 - Coffee Break (free discussion of above talks).

17:20 – 18:10 "Afterglow from the interaction of gamma radiation with a dense gaseous cloud"

(45'+5')Gennady Bisnovatyi-Kogan

18:10 - 18:20 Break to transfer to Public Lecture Auditorium.

18:20 – 19:10 - Public lecture by G.F. Smoot: "GRB science, problems and prospects".

#### Friday June 15, 2012

09:00 – 09:50 "Science and instruments for Future GRB missions"

(45'+5') Bruce Grossan

09:50 - 10:40 "Global MASTER Net"

(45'+5') Vladimir Lipunov

10:40 – 11:00 Coffee Break, and free discussion of above talks

11:00 – 11:50 "Gamma-Ray spectrometer BDRG on-board "Lomonosov": design, parameters,

(45'+5') results of tests"

Vitaly Bogomolov

11:50-12:40 "Status of the UFFO Project"

(45'+5') Bruce Grossan

12:40 - 14:30 Lunch

14:30 – 15:20 "Bulk Lorentz factors and commoving properties of GRBs"

(45'+5') Lara Nava

15:20 – 16:00 Discussion on the status of Compton-scatter instruments development in Europe, Japan and USA.

All participants

16:30 – 17:00 Coffee Break. Free discussion of above talks.

17:00 – 17:50 Discussion of polarization measurements at energies 10 keV-1 MeV,

(45'+5') e.g., ranges relevant to the GRB prompt emission and afterglow.

All participants

18:40 – Conference dinner

### Saturday June 16, 2012

09:00-19:00 - Bus excursion to Sergiev Posad. The whole day excursion with lunch in Sergiev Posad.

#### Sunday June 17, 2012

10:00 Sightseeing excursion to and round the central part of Moscow, by bus.