

MG16 5-10 JULY 2021

SIXTEENTH MARCEL GROSSMANN MEETING

ON RECENT DEVELOPMENTS IN THEORETICAL AND EXPERIMENTAL GENERAL RELATIVITY, ASTROPHYSICS AND RELATIVISTIC FIELD THEORIES

VIRTUAL MEETING

websites:

<http://www.icra.it/mg/mg16/>

<https://indico.icranet.org/event/1/>

email:

mg16@icranet.org

6:30-19:30 CENTRAL EUROPEAN SUMMER TIME

**50TH ANNIVERSARY OF
"INTRODUCING THE BLACK HOLE"**



Plenary sessions include

MG16 Individual awards:

Demetrios Christodoulou, Gerard 't Hooft, Tsvi Piran, Steven Weinberg

MG16 Institutional award: Spektrum-Roentgen-Gamma (SRG) mission to S.A. Lavochkin association, Max Planck Institute for extraterrestrial physics (MPE), Space Research Institute (IKI) of the Russian Academy of Sciences.

Monday: Events in relativistic astrophysics

Speakers: Ruffini R., Sunyaev R., Kramer M., Miller-Jones J., Mirabel F.

Tuesday: Black holes and the Quantum

Speakers: Maldacena J., Almheiri A., 't Hooft G., Dafermos M., Kleinerman S., Ashtekar A., Wilczek F., Haxton W.

Wednesday: Lambda CDM tensions

Speakers: Efstathiou G., Scolnic D., Kamionkowski M., Freedman W., Natarajan P., Verde L.

Thursday: Black holes in GRBs

Speakers: Kerr R.P., Ha Y. K., Amati L., Pian E., Arguëlles C. R.

Precision tests

Speakers: Li D., Liu J., Aspelmeier M., Laemmerzahl C., Heinzl G., Ciufolini I.

Friday: Massive stars

Speakers: De Mink S., Langer N., Bica J. and Ledvinka T., De Mitri I., Moradi R., Cella G.

Physics behind stellar collapse

Speakers: Fryer C., Laguna P., Kaspi V., Zhang B.

Saturday: Current and future missions

Speakers: Yuan W., Tashiro M. S., Liu R., Zhang S-N.

Future missions

Speakers: Hernanz M., J. L. Atteia, Hinton J.A., White N., Genzel R.

Round tables

Tuesday: New results from SRG/eRosita, Solar neutrinos and Borexino; **Wednesday:** Precision cosmology;

Friday: GRB170817A; **Saturday:** What is in our Galactic center?

Public lectures

Mirzoyan R., Qadir A., Bagheri M., Halzen F.

Parallel sessions

Accretion, Active Galactic Nuclei, Alternative Theories, Black Holes: Theory and Observations/Experiments, Binaries, Boson stars, Cosmic Microwave Background, Cosmic Strings, Dark Energy and Large Scale Structure, Dark Matter, Education, Exact Solutions, Early Universe, Fundamental Interactions and Stellar Evolution, Fast Transients, Gravitational Waves, High Energy, History of Relativity, Neutron Stars, Precision Tests, Quantum Gravity, Strong Field, White Dwarfs

Chandra X-ray image of GRB170817A at 110 days

Credit: NASA/CXC/M.Weiss

THE MARCEL GROSSMAN MEETINGS

Since 1975, the Marcel Grossman Meetings have been organized in order to provide opportunities for discussing recent advances in gravitation, general relativity and relativistic field theories, emphasizing mathematical foundations, physical predictions and experimental tests. The objective of these meetings is to elicit exchange among scientists that may deepen our understanding of space-time structures as well as to review the status of ongoing experiments aimed at testing Einstein's theory of gravitation and relativistic field theories either from the ground or from space. Previous meetings have been held in Trieste (1975) and (1979), Shanghai (1982), Rome (1985), Perth (1988), Kyoto (1991), Stanford (1994), Jerusalem (1997), Rome (2000), Rio (2003), Berlin (2006), Paris (2009), Stockholm (2012) and Rome (2015-2018). Interested scientists should address a member from any one of the organizing committees or the conference secretariat.

INTERNATIONAL ORGANIZING COMMITTEE

Blair D., Choquet Bruhat Y., Damour T., De Bernardis P., Everitt C.W.F., Fryer C., Haensch T., Henneaux M., Jones C., Kerr R., Kleinert H., Kunz J., Laemmerzahl C., Longair M., Mirabel F., Mirzoyan R., Piran T., Rueda J., Ruffini R. (chairperson), Sasaki M., Sato H., Sunyaev R., 't Hooft G., Weinberg S., Yau S-T., Zhang B.

LOCAL ORGANIZING COMMITTEE

Adamo C., Bianco C.L., Brandolini G.A., di Niccolo C., Latorre S., La Selva D., Li L., Loppini A., Natale E., Verzulli D., Vereshchagin G.V. (chairperson), Wang Y.

