



Advances in Astronomy

Special Issue on
**Celebrating 100 Years of Einstein's General Relativity
and the Future of Gravitational Physics**

CALL FOR PAPERS

This year marks the 100th anniversary of Einstein's General Theory of Relativity. General Relativity is one of the greatest intellectual achievements in human history. The theory has passed countless experimental tests of gravity, mostly within our solar system, and provides the stepping stone for our contemporary understanding of black holes and cosmology. Besides providing us with a key understanding of gravitational aspects of the Universe after the Big Bang, the theory is used to better our everyday lives, providing practical applications, such as timing device calibration for GPS satellites.

Despite the triumphs of General Relativity there are many open questions on gravity, both theoretical and experimental, leading to continued vivacious research in the field. These questions, ranging broadly in context from the detection of gravitational waves, to the discovery of the true nature of the current accelerating Universe, to quantum aspects of gravity, are the basis for this special issue. It is our pleasure to solicit papers discussing topics at the forefront of theoretical and experimental gravitational physics, including recent advances in General Relativity, suggested modifications of gravity, quantum aspects of gravity, quantum information theory, analogies with condensed matter systems, and beyond, in celebration of this momentous occasion.

Potential topics include, but are not limited to:

- ▶ Recent advances in General Relativity
- ▶ Modifications of gravity
- ▶ Extra dimensional scenarios
- ▶ Quantum gravity phenomenology
- ▶ Dark energy
- ▶ Analogue models for gravity
- ▶ Quantum information and black hole physics
- ▶ Astrophysics of dark matter
- ▶ Gravitational wave detection
- ▶ Experimental test of gravity theories

Authors can submit their manuscripts via the Manuscript Tracking System at <http://mts.hindawi.com/submit/journals/aa/cell100/>.

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Damien A. Easson, Arizona State University, Tempe, USA
easson@asu.edu

Guest Editors

Yi-fu Cai, University of Science and Technology of China, Hefei, China
yifucai@ustc.edu.cn

Michele Liguori, University of Padova, Padova, Italy
liguorim@pd.infn.it

Chunshan Lin, Kyoto University, Kyoto, Japan
chunshan.lin@ipmu.jp

Antonino Marcianò, Fudan University, Shanghai, China
marciano@fudan.edu.cn

Scott Watson, Syracuse University, Syracuse, USA
gswatson@syr.edu

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