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Open Questions in Black Hole Physics

Collection Editors:

Dr. Gonzalo J. Olmo

Associate Professor, Department
of Theoretical Physics & IFIC,
University of Valencia & CSIC, C/
Dr. Moliner 50, 46100 Burjassot,
Valencia, Spain

Dr. Diego Rubiera-Garcia

Instituto de Astrofísica e Ciências
do Espaço, Faculdade de
Ciências da Universidade de
Lisboa, Edifício C8, Campo
Grande, P-1749-016 Lisbon,
Portugal

Message from the Collection Editors

Dear Colleagues,

Black holes are fascinating objects that hold the key to uncover the intimate relation between gravitation and the quantum, as well as a number of astrophysical phenomena. The strength of their gravitational field is responsible for extreme deformations of the causal structure of space-time, leading to intriguing thermodynamic properties and serious tensions with our understanding of the quantum world. The current picture of the Universe could hardly be explained without recurring to them, even though they are very elusive and defy direct observational detection.

The coming years are likely to witness important breakthroughs in our view of black holes and their astrophysical and quantum properties through the direct detection of gravitational waves and Hawking radiation in analogue models. A number of fundamental open questions might find an answer and new ones may emerge...

For further information, please visit http://www.mdpi.com/journal/universe/special_issues/OpenQuestionsBlack_Hole_Physics.

Dr. Gonzalo J. Olmo
Collection Editor



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Topical Collection



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Editor-in-Chief

Prof. Dr. Lorenzo Iorio

Ministero dell'Istruzione e del Merito, Viale Unità di Italia 68, 70125 Bari, BA, Italy

Message from the Editor-in-Chief

The multidisciplinary *Universe* journal is aiming to follow and, hopefully, to lead to the largest extent as possible the ever-self renovating threads which weave mathematical theories with our understanding of the magnificent natural world. On behalf of all the distinguished members of the editorial board, I extend my welcome to this new journal and look forward to hearing from the interested contributors and learning about their valuable research.

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Contact Us

Universe Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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