X Mexican School on Gravitation and Mathematical Physics 2014

Reaching a Century: Classical and Modified General Relativity's Attempts to Explain the Evolution of the Universe

Journal of Physics: Conference Series Volume 654

Playa del Carmen, Mexico
1 – 5 December 2014

Editors:

Ricardo Becerril Barcenas
Hector Hugo Hernandez Hernandez
Miguel Sabido

ISBN: 978-1-5108-1728-9
ISSN: 1742-6588

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571

Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2014) by the Institute of Physics
All rights reserved. The material featured in this book is subject to
IOP copyright protection, unless otherwise indicated.

Printed by Curran Associates, Inc. (2016)

For permission requests, please contact the Institute of Physics
at the address below.

Institute of Physics
Dirac House, Temple Back
Bristol BS1 6BE UK

Phone: 44 1 17 929 7481
Fax: 44 1 17 920 0979

techtracking@iop.org

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

Table of contents

Volume 654

X Mexican School on Gravitation and Mathematical Physics: ''Reaching a Century: Classical and Modified General Relativity's Attempts to explain de evolution of the Universe''
1–5 December 2014, Playa del Carmen, Quintana Roo, México

Accepted papers received: 15 October 2015
Published online: 11 November 2015

Preface

011001

X Mexican School on Gravitation and Mathematical Physics: "Reaching a Century: Classical and Modified General Relativity's Attempts to explain de evolution of the Universe" OPEN ACCESS R B Bárcenas, H H H Hernández and M Sabido

011002

Peer review statement OPEN ACCESS

Papers

012001

Time series analysis of gravitational wave signals using neural networks OPEN ACCESS M Carrillo, J A González, M Gracia-Linares and F S Guzmán pg. 1

012002

Thermal properties for an ensemble of polymer Fermi oscillators OPEN ACCESS Guillermo Chacón-Acosta, Angel A García-Chung and Héctor H Hernandez-Hernandez pg. 11

012003

An effective non-commutative loop quantum cosmology OPEN ACCESS Abraham Espinoza-García, M Sabido and J Socorro pg. 19

012004

Relativistic bulk viscosity in the relaxation time approximation: a chaotic velocities approach OPEN ACCESS A L García-Perciante, A R Méndez and A Sandoval-Villalbazo pg. 29

012005

Lagrangian formulation for fermionic and supersymmetric non conservative systems OPEN ACCESS N E Martínez-Pérez and C Ramírez pg. 36

012006

Geometric description of black hole thermodynamics with homogeneous fundamental equation OPEN ACCESS Alberto Sánchez pg. 42

012007

Time-varying cosmological term OPEN ACCESS J Socorro, M D'oleire and Luis O Pimentel pg. 50

012008

Hydrodynamic representation of the Klein-Gordon-Einstein equations in the weak field limit OPEN ACCESS Abril Suárez and Pierre-Henri Chavanis pg. 57