

5th Workshop of Young Researchers in Astronomy and Astrophysics 2009

Journal of Physics: Conference Series Volume 218

**Budapest, Hungary
2-4 September 2009**

**ISBN: 978-1-61738-621-3
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© (202;) by the Institute of Physics
All rights reserved.

Printed by Curran Associates, Inc. (2010)

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

REVIEW PAPERS

012001: Measuring and Modelling Light Pollution at the Zselic Starry Sky Park.....	1
<i>Zoltán Kolláth</i>	
012002: The Dynamical Solar Atmosphere	7
<i>István Ballai, Emese Forgács-Dajka</i>	
012003: Notes on Exoplanets	21
<i>Szilárd Csizmadia</i>	
012004: Planet Formation – Implication of Statistical Properties of Exoplanets	26
<i>Áron Süli</i>	
012005: On the Formation of Close Binaries – An Interferometric Look on Algol(s)	42
<i>Tamás Borkovits, Zsolt Paragi, Szilárd Csizmadia</i>	

CONTRIBUTED PAPERS

012006: Numerical Investigations of Gravitational Collapse	49
<i>Péter Csizmadia, István Rácz</i>	
012007: Linear Waves on Fixed Kerr Background and Their Relevance in Jet Formation	53
<i>Péter Csizmadia, András László, István Rácz</i>	
012008: Some Preliminary Results on the Dynamics of Einstein-Yang-Mills-Higgs Systems	57
<i>Péter Csizmadia, Gergely Kovács, István Rácz</i>	
012009: A New Definition for Parameterizing Perturbed Kepler Dynamics	63
<i>János Majár</i>	
012010: Compact Stars in Kaluza – Klein World	67
<i>Gergely Gábor Barnaföldi, Péter Lévai, Béla Lukács</i>	
012011: Elliptic Waveforms for Inspiralling Compact Binaries.....	71
<i>Balázs Mikóczi</i>	
012012: Bayesian Approach for Matching Multiple Stellar Observations	75
<i>Gyöngyi Kerekes, Tamás Budavári, István Csabai</i>	
012013: High Resolution Studies of the IDV Quasar J1128+592.....	81
<i>Krisztina Éva Gabányi, Nicola Marchili, Thomas Krichbaum, Lars Fuhrmann, Xiang Liu, Hua-Gang Song</i>	
012014: The Compact Radio Structure of the High-Redshift Blazar J1430+4204 Before and After a Major Outburst.....	85
<i>Péter Veres, Sándor Frey, Zsolt Paragi, Leonid I. Gurvits</i>	
012015: Probing the Stellar Populations in the Outskirts of Spiral Galaxies	89
<i>Judit Bakos, Ignacio Trujillo, Michael Pohlen</i>	
012016: Energy Use, Entropy and Extra-Terrestrial Civilizations.....	95
<i>Zsolt Hetesi</i>	
012017: Stability of the Orbit of a Third Body in Binary Asteroid Systems.....	99
<i>Imre Nagy, Áron Süli, Bálint Érdi</i>	
012018: Features of Librational Motions Around L₄.....	103
<i>Renáta Rajnai, Imre Nagy, Bálint Érdi</i>	
012019: Stable and Habitable Systems with Two Giant Planets.....	107
<i>Vera Dobos, Imre Nagy, Judit Orgoványi</i>	
012020: How 'New Horizons' Will See the Pluto-Charon System	115
<i>Zsuzsa Zsigmond, Áron Süli</i>	
012021: A Young Star's Hectic Months	119
<i>Elza Elek, Mária Kun</i>	
012022: AKARI Results on the Taurus-Auriga Star Forming Region.....	123
<i>Sarolta Zahorecz, L. Viktor Tóth, Ueno Munetaka, Gábor Marton, Akiko Kawamura, Motohide Tamura</i>	
012023: CO Survey of ARCHEOPS Cold Cores.....	127
<i>Erika Verebélyi, Martin Miller, L. Viktor Tóth, Zoltán Makai, Gábor Marton</i>	
012024: Preliminary Analysis of the AKARI FIS BSC.....	131
<i>Gábor Marton, L. Viktor Tóth, Munetaka Ueno, Sarolta Zahorecz, Akiko Kawamura, Motohide Tamura</i>	

012025: Effects of [Fe/H] on the Properties of Galactic Classical Cepheids	135
<i>Péter Klagyivik, László Szabados</i>	
012026: Automated Data Analysis – Algorithms for Gaia Cepheids.....	139
<i>Zoltán Tamás Kiss, László Szabados</i>	
012027: Linear Period Dependencies from Free Parameters in RR Lyrae Models	143
<i>László Molnár, Zoltán Kolláth</i>	
012028: Looking Into the Heart of a Beast: The Black Hole Binary LS 5039	147
<i>Tamas Szalai, Laszlo L. Kiss, Gordon E. Sarty</i>	
012029: Testing the Global Flow Reconstruction Method on Coupled Chaotic Oscillators.....	153
<i>Emese Plachy, Zoltán Kolláth</i>	
Author Index	