

International Symposium on New Developments in Methods and Applications of Few-Body Physics 2017

In Memory of Professor SA Sofianos

Journal of Physics: Conference Series Volume 915

Pretoria, South Africa
2 - 5 May 2017

Editors:

G.J. Rampho
M.L. Lekala

ISBN: 978-1-5108-5068-2
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© (2017) 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. (2017)

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: 845-758-2633
Email: curran@proceedings.com
Web: www.proceedings.com

Table of contents

Volume 915

International Symposium on New Developments in Methods and Applications of Few-body Physics: In Memory of Professor SA Sofianos

2–5 May 2017, University of South Africa

Published online: 30 October 2017

Preface

011001

OPEN ACCESS

[International Symposium on New Developments in Methods and Applications of Few-body Physics: In Memory of Professor SA Sofianos](#)

011002

OPEN ACCESS

[Peer review statement](#)

Papers

012001

OPEN ACCESS

[A new horizon of Few-Body Problems: Exact Coulomb treatment and the energy-momentum translation of the three-body Faddeev equation](#)

S Oryu, T Watanabe, Y Hiratsuka, A Kodama, Y Togawa and M Takeda.....1

012002

OPEN ACCESS

[Scaling behavior of scattering observables for three-body systems near the unitary limit](#)

Lauro Tomio, M A Shalchi, M T Yamashita, M R Hadizadeh and T Frederico.....13

012003

OPEN ACCESS

[Scattering length calculations via Faddeev approach](#)

E A Kolganova.....21

012004

OPEN ACCESS

[Construction of lambda-nucleon *s*-wave potential through quantum inverse scattering at fixed angular momentum](#)

E F Meoto and M L Lekala.....27

012005

OPEN ACCESS

[Few-body integrodifferential equation on Lagrange mesh](#)

G J Rampho, L C Mabunda and M Ramantswana.....33

012006

OPEN ACCESS

[Artificial neural networks with an infinite number of nodes](#)

K Blekas and I E Lagaris.....42

012007

OPEN ACCESS

[Jost function method approach for study of unstable nuclei](#)

Hiroshi Masui.....53

012008

OPEN ACCESS

[Partial widths of a multi-channel resonance](#)

Sergei Rakityansky.....61

012009

OPEN ACCESS

[Energy dependence of the continuum-continuum couplings in the breakup of \${}^6\text{Li}\$ on \${}^{144}\text{Sm}\$ target](#)

B Mukeru.....73