

IUTAM Symposium on the Dynamics of Extreme Events Influenced by Climate Change 2013

Procedia IUTAM Volume 17

Lanzhou, China
23 - 25 September 2013

Editors:

Ning Huang

ISBN: 978-1-5108-1363-2

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© by Elsevier B.V.
All rights reserved.

Printed by Curran Associates, Inc. (2015)

For permission requests, please contact Elsevier B.V.
at the address below.

Elsevier B.V.
Radarweg 29
Amsterdam 1043 NX
The Netherlands

Phone: +31 20 485 3911
Fax: +31 20 485 2457

<http://www.elsevierpublishingsolutions.com/contact.asp>

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

Preface	1
<i>N. Huang</i>	
Opening Address by the Co-chairman of the Symposium	2
<i>X. Zheng</i>	
Hydro-meteorological Disasters: Causes, Effects and Mitigation Measures with Special Reference to Early Warning with Data Driven Approaches of Forecasting	3
<i>A. Jayawardena</i>	
Field Observations on the Turbulent Features of the Near-surface Flow Fields and Dust Transport During Dust Storms	13
<i>X. Zheng, G. Wang, T. Bo, W. Zhu</i>	
The Mechanism of Dust Entrainment under Strong Wind with Gustiness	20
<i>F. Hu, X. Cheng, Q. Zeng</i>	
Effects of Water Seepage on the Stability of Soil-slopes	29
<i>Q. Liu, J. Li</i>	
The Future Wave Climate of Ireland: From Averages to Extremes	40
<i>R. Tiron, S. Gallagher, E. Gleeson, F. Dias, R. McGrath</i>	
High-impact Weathers in a Changing Climate over Arid Eurasia and Proactive Disaster Management	47
<i>M. Shinoda</i>	
Statistical Distributions and Climate Change	53
<i>T. Koh</i>	
When will Cyclogenesis Commence Given a Favorable Tropical Environment?: To the 30th anniversary of the hypothesis on the turbulent vortex dynamo and dedicated to the memory of Soviet-Russian scientist, Professor Semen Samoilovich Moiseev	59
<i>G. Levina, M. Montgomery</i>	
Southern Africa's 2012–13 Violent Storms: Role of Climate Change	69
<i>E. Moyo, S. Nangombe</i>	
Modeling and Optimal Control of Atmospheric Pollution Hazard in Nuclear and Chemical Disasters	79
<i>H. Shunxiang, L. Feng, Z. Qingcun, H. Fei, J. Zhu, Z. Wang</i>	
Modelling Aeolian Erosion in Presence of Vegetation	91
<i>S. Dupont, G. Bergametti, S. Simoens</i>	
Passive Control of Near-wall Turbulence By Means of Roughness Elements	101
<i>C. Pan, J. Wang</i>	
Influence of Gaussian Hill on Concentration of Solid Particles in Suspension Inside Turbulent Boudary Layer	110
<i>S. Simoens, A. Saleh, C. Leribault, M. Belhmadi, R. Zegadi, F. Allag, J. Vignon, G. Huang</i>	
Discussions of Some Issues for Wind Blown Sand Flow Simulation	119
<i>W. Li, Y. Zhang, W. Wei, Z. Gu</i>	
Wind-tunnel Experiment on Dust Atmosphere-surface Exchange: Emission and Dry Deposition	129
<i>N. Huang, J. Zhang</i>	
Author Index	