# Marine Transportation and International Trade 2018

Transportation Research Record: Journal of the Transportation Research Board

Volume 2672, Issue 11

ISBN: 978-1-5108-7732-0

#### 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.

Published by Sage Publications USA

Copyright© (2018) by Transportation Research Board of the National Academies All rights reserved.

ISBN (Print) 978-1-5108-7732-0 ISBN 2018 Printed Set (All Issues) 978-1-5108-7735-1

Printed by Curran Associates, Inc. (2018)

For permission requests, please contact sagepub.com/journals-permissions

### 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



## **Contents**

## Marine Transportation and International Trade

## **Articles**

The Dynamics of Dry Bulk Shipping Market Under the Shipping Cycle Perspective: Market Relationships and Volatility	I
'ijie Wu, Jingbo Yin, and Pan Sheng	
Assessment of Canada's Transportation System under the Comprehensive Economic and Trade Agreement Mahyar Jahangiriesmaili, Matthew J. Roorda, Chris Bachmann, and Rupert Allen	10
Geospatial Risk Assessment of Marine Terminal Infrastructure to Storm Surge Inundation and Sea Level Rise George M. McLeod, Thomas R. Allen, and Joshua G. Behr	19
Developing and Implementing a Port Fluidity Performance Measurement Methodology using Automatic Identification System Data C. James Kruse, Kenneth N. Mitchell, Patricia K. DiJoseph, Dong Hun Kang, David L. Schrank, and William L. Eisele	30
Leveraging the Value of Land and Landside Access to Fund Port Infrastructure in Texas Rafael M. Aldrete, Carl James Kruse, David Salgado, Sharada R. Vadali, Abhisek Mudgal, Juan Carlos Villa, Lorenzo E. Cornejo, and Deog Sang Bae	41
Evaluation of the Health Impacts of Rolling Back a Port Clean Trucks Program  Dana Rowangould, Gregory Rowangould, and Debbie Niemeier	53
A Zero-Inflated Negative Binomial Regression Model to Evaluate Ship Sinking Accident Mortalities Tian Chai, De-qi Xiong, and Jinxian Weng	65
Determination of Minimum Distance to Obstacle Avoidance in the Singapore Strait Zhaoyang Lu, Liujiang Kang, Song Gao, and Qiang Meng	73