



**UvA-DARE (Digital Academic Repository)**

**Dynamic delay management at railways: a Semi-Markovian Decision approach**

Al Ibrahim, A.

[Link to publication](#)

*Citation for published version (APA):*

Al Ibrahim, A. (2010). Dynamic delay management at railways: a Semi-Markovian Decision approach  
Amsterdam: Thela Thesis

**General rights**

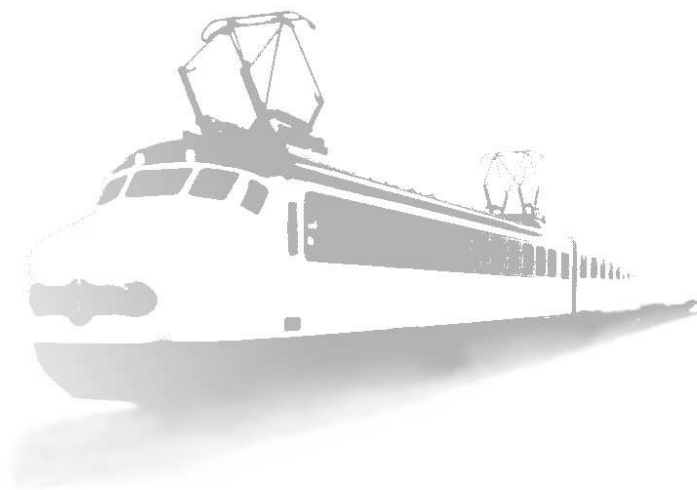
It is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), other than for strictly personal, individual use, unless the work is under an open content license (like Creative Commons).

**Disclaimer/Complaints regulations**

If you believe that digital publication of certain material infringes any of your rights or (privacy) interests, please let the Library know, stating your reasons. In case of a legitimate complaint, the Library will make the material inaccessible and/or remove it from the website. Please Ask the Library: <http://uba.uva.nl/en/contact>, or a letter to: Library of the University of Amsterdam, Secretariat, Singel 425, 1012 WP Amsterdam, The Netherlands. You will be contacted as soon as possible.

# Dynamic Delay Management at Railways

A Semi-Markovian Decision Approach



Copyright © 2010 by A. Al-Ibrahim

All rights reserved. No part of the material protected by this copyright notice may be reproduced or utilized in any form or by any means, electronic or mechanical, including photocopying, recording or by any information storage and retrieval system, without written permission from the author.

Printed in The Netherlands

ISBN 978 90 3610174 5

Cover design: Crasborn Graphic Designers bno, Valkenburg a.d. Geul

This book is no. **470** of the Tinbergen Institute Research Series, established through cooperation between Thela Thesis and the Tinbergen Institute. A list of books which already appeared in the series can be found in the back.

# Dynamic Delay Management at Railways

**A Semi-Markovian Decision Approach**

ACADEMISCH PROEFSCHRIFT

ter verkrijging van de graad van doctor  
aan de Universiteit van Amsterdam  
op gezag van de Rector Magnificus  
prof. dr. D.C. van den Boom  
ten overstaan van een door het college voor promoties  
ingestelde commissie,  
in het openbaar te verdedigen in de Agnietenkapel  
op donderdag 27 mei 2010, te 14:00 uur

door

**Assil Al-Ibrahim**

geboren te Moskou, Russische Federatie

## **Promotiecommissie**

**Promotor:** Prof. dr. ir. J. van der Wal

**Overige leden:** Prof. dr. N.M. van Dijk  
Prof. dr. ir. I.J.B.F. Adan  
Dr. R. Núñez Queija  
Prof. dr. ir. J.W.M. Bertrand  
Prof. dr. L.G. Kroon  
Prof. dr. R.J. Paul