

Preface

The CM3 2015 Conference (Computational Multi physics, Multi Scales and Multi Big Data in Transport Modeling, Simulation and Optimization) is the first of a series on European Conferences on Green Challenges in Transport which took place at Jyväskylä, Finland on May 25–27, 2015.

Its aim was bringing together academic and small and large industries experts in the fields of Computational Methods and Tools for Transport and its Applications.

This series of Thematic Conferences on Transport was originally launched by the Industry Interest Group (IIG) of ECCOMAS with main objectives are: strengthening the industrial liaison and developing contacts between ECCOMAS and the different DGs of the European Commission.

The conference included: introductory lecture (1), plenary (4) and semi plenary (6) lectures, Special Technology Sessions (2) on Aeronautics and Maritime, Round Tables (3) on New Challenges and Solutions for Greening Transport, The Growing Importance of Intra-Logistics and the Role of Information and Big Data, Parallel Contributed sessions (7).

The Transport disciplines considered during the conference were Aeronautics, Automotive, Logistics, Maritime and Railways, with the Logistics as dominant discipline (1,5 day of the program dedicated to SMEs involved in Logistics).

The content of this volume is organized into three main sections with 15 contributions in the above disciplines classified as follows:

1. Reviews and Perspectives
2. Computational methods
3. Translational Research

The book is addressed to researchers and technologists experts in the fields of “Greening Transport,” ranging from innovative computational methods to software tools used for solving challenging industrial and societal problems in Transport.

CM3 2015 was organized by University of Jyväskylä in association with European Commission (EC) DG Research and Innovation, ECCOMAS and the International Center for Numerical Methods in Engineering (CIMNE).

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New Challenges for the Greening of Transport Systems

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