International Conference on Innovation in High Speed Marine Vessels 2011

Fremantle, Australia
2-3 March 2011

ISBN: 978-1-62276-260-6
# TABLE OF CONTENTS

On the Environmental Impact of High-Speed and Lightweight Craft ................................................................. 1
  N.A. Armstrong

Recent DNV Developments for High Speed Craft .......................................................................................... 41
  R. Humphrey

The Application of LNG as a Fuel for Medium and High Speed Ferries .................................................. 73
  J.N.A. Bennett

Utilising Air Lubrication for Energy Efficient High Speed Marine Vehicles ........................................... 107
  S. Gökçay, M. Insel

A Revolutionary Ride Control System for Multi-Hull High Speed Marine Vessels ................................ 159
  A.J. Robertson, R. Monk

The Development and Testing of an Optimised Ride Control System for a 102-Metre Trimaran Ferry ........ 185
  T. Clarke, N.A. Armstrong, J. Lee

Controlling Hydroelastic Instability of Hull Panels Through Structural Inhomogeneity ......................... 214
  B.H. Tan, A.D. Lucey, M.W. Pitman

130m Wave Piercer Catamaran: A New Energy Efficient Multihull Operating at Critical Speeds ............ 242

A Study of the Losses and Interactions Between One or More Bow Thrusters and a Catamaran Hull ...... 298
  L. Boddy, T. Clarke

A 2D Smoothed Particle Hydrodynamics Theory for Calculating Slamming Loads on Ship Hull Sections ............................................................................................................ 322
  D.J. Veen, T.P. Gourlay

Benefiting from New KAMEWA Waterjet Designs ......................................................................................... 352
  J. Adamsson, R. Aartojärvi

Design, Material Selection and Galvanic Protection of New Series of Midsize Waterjets .......................... 371
  R. Verbeek

Quantifying the Effects of Small Craft High Speed Transits on Personnel .............................................. 397
  P. Elischer, M. Grech, D. Sanford, D. Wiese

Motion Control of Resonance-Free SWATH Using Small Movable Fins ............................................... 434
  M. Yoshida, H. Kihara, H. Iwashita, T. Kinoshita

Hydrodynamic Effects on Ships Travelling through the Critical Speed in Shallow Water ..................... 473
  T.P. Gourlay

Measured Boat Wakes and Wind Waves on the Swan River .................................................................... 507
  T.P. Gourlay

Learning from the Dolphin: A Review of Compliant Walls for Skin-Friction Drag Reduction in Marine Applications .................................................................................................................. 547
  A.D. Lucey, M.W. Pitman

Author Index