



Dr Andrzej Jasionowski practices forensic naval architecture and marine engineering.

He holds a PhD in damaged vessel hydrodynamics from the University of Strathclyde, UK, (2002). He has specialised since 1995 in the application of advanced numerical techniques for stability, hydrodynamics, oil film lubrication, thermodynamics of LNG mixtures, ship flooding simulations, probabilistic assessment of time to sink and capsize, holistic risk quantification, shaft alignment. He routinely applies finite element method (FEM), Lagrange collocation (LC), boundary element (BEM) and NURBS collocation methods to forensics of collision, grounding, unsafe port, elasto- thermo- hydro- dynamics in assessment of design defects and complex cryogenic cargo operations.

He advised on new building and other disputes regarding ship weight, fuel oil consumption, shaft alignment, stern tube (journal) bearing failures, cranes (slewing) bearing failures, structural integrity impairments, propulsion, stability, ship capacity, unsafe ports, LNG boil off and heat losses, supported sea trials and yard inspections.

He advised on foundering of several ships including bulk carriers, m.v. “DERBYSHIRE”, ropax, m.v. “ESTONIA”, m.v. “NAPOLEON BONAPARTE”, m.v. “SEWOL”, m.v. “HYUNDAI No.105”, m.v. “ROCKNESS”, offshore semisubmersible “DEEP WATER HORIZON”, among others.

He advised government organisations (UK, EC) on regulatory developments for risk mitigation (with presentations to the International Maritime Organisation IMO).

Andrzej has developed advanced decision support systems for effective operation and flooding crises management and supported the design development of several significant new building projects.

He is an author, co-author, co-contributor to articles published in journals, conferences and books. Andrzej has contributed as and has acted as an expert witness at arbitration hearings (UK, FRANCE, SOUTH KOREA, SOUTH AFRICA, SINGAPORE, HONG KONG, AUSTRALIA).

EDUCATION AND QUALIFICATIONS

2023	ASIArb (Associate Member of Singapore Institute of Arbitrators)
2022	MEWI (Member of Expert Witness Institute)
2021	MBEWA (Member of Baltic Expert Witness Association)
2019	SLMAA (Supporting Member of London Maritime Arbitration Association)
2003	MRINA (Member of the Royal Institute of Naval Architects)
2003	CEng (Chartered Engineer, Member of Engineering Council UK)
2002	PhD, Ship and Marine Technology, University of Strathclyde, Glasgow, UK
1997	MEng, Naval Architecture and Ocean Engineering, Technical University of Gdansk, Poland

EXPERIENCE

- 2019 – SophusQuorum Pte Ltd, Singapore
Director, Forensic Naval Architect
Expert witness services - air seal failures, stern tube bearings failures, crane failures, slewing bearings, unsafe port, design defects, ship sinking, foundering, groundings, site surveys, numerical modelling and simulations, FEM, LC and BEM, model testing design and analyses, statistical analyses and risk quantifications, decision support systems investigations, LNG boil off and conductive heat losses analyses, surveys and site investigations, evidence in Arbitrations.
- 2018 – 2019 Braemar Technical Services (Adjusting) Pte Ltd, Singapore
Director, Forensic Naval Architect
Expert witness services (arbitrations), accident investigations (grounding, foundering/sinking), design defects analyses, assist in emergency support on major casualties, casualty surveys, unsafe port modelling and analyses.
- 2002 – 2017 Safety At Sea Ltd, Brookes Bell LLP, UK/Singapore
Partner, Director, Maria Skłodowska-Curie post-PhD Fellow
Accident investigation and litigation support (stability, hydrodynamic simulation, quantitative ship vulnerability assessment, manoeuvring, collision, grounding), new-building design support (stability and survivability), stability conversion assessments, automated ballasting systems development, deadweight management optimisation for energy efficiency and regulatory compliance. New building disputes regarding fuel oil consumption, shaft alignment and stern tube bearing failures, structural integrity, propulsion and stability. Support of sea trials and yard inspections. Resource management, project management.
- 1996 – 2011 University of Strathclyde, UK
Lecturer, and Technical Manager at the Ship Stability Research Centre, Academic Visitor, Research Fellow, PhD Researcher
Resource management, project management, R&D consortia coordination, developments in area of risk quantification, decision support, stability, legislation amendments, numerical survivability and time to sink assessment, ship sinking accident investigation (MV Derbyshire, MV Estonia), arbitration support (BAE Systems), survivability simulation, evacuation, ship systems modelling, laboratory ship stability testing.
- 1995 – 1996 MARINTEK, NTNU, Norway, Ship Design and Research Centre (CTO) Gdansk, Poland
Researcher on ship hydrodynamics, seakeeping, resistance, motions in waves, model testing.

List of Publications

Books

- [1] Soares, C, G, **Jasionowski, A**, Jensen, J, J, Juhl, J, McGeorge, D, Poylio, E, Sames, P, Skjong, R, Vassalos, D, *“Risk-Based Ship Design, Methods, tools and applications”*, ISBN978-3-540-89041-6, SPRINGER, 2009, editor A Papanikolaou.
- [2] *et. al. ...*, **Jasionowski A**, ..., *“Contemporary Ideas on Ship Stability and Capsizing in Waves”*, ISBN 978-94-007-1482-3, SPRINGER, edited by Marcelo Almeida Santos Neves, Jan Otto de Kat, Naoya Umeda, Vadim Belenky, Kostas Spyrou, 2011.

Refereed Journal Papers

- [3] **Jasionowski, A**, Dodworth, K and Vassalos, D: *“Proposal of Passenger Survival-Based Criteria for Ro-Ro Vessels”*, International Shipbuilding Progress, Vol. 46, No 448, October 1999, 10 pp.
- [4] Vassalos, D, **Jasionowski, A**, Dodworth, K, Allan, T, Matthewson, B, Paloyannidis, P: *“Time-Based Survival Criteria For Ro-Ro Vessels”*, RINA Spring Meetings 1998, London, 18pp, Winner of the Bronze Medal of Merit for a paper published in 1998.
- [5] **Jasionowski, A**, Vassalos, D, Guarin, L, *“Time-based survival criteria for passenger Ro-Ro Vessels”*, Journal of Marine Technology 2003, Vol 40, No 4, pp. 278-287.
- [6] Dracos Vassalos, Luis Guarin, **Jasionowski, A**, Yunlong Zheng, *“A risk-based first-principles approach to assessing green seas loading on the hatch covers of bulk carriers in extreme weather conditions”*, Journal of Marine Structures, 2003, Vol 16, pp. 659-685.
- [7] Dracos Vassalos, **Jasionowski, A**, Jakub Cichowicz, *“Issues related to the weather criterion”*, Int. Shipbuilding Progress, 51, no 2/3 (2004), pp251-271.
- [8] Nan Xie, Dracos Vassalos, **Jasionowski, A**, *“A Study of Hydrodynamics of Three Dimensional Planning Surface”*, Ocean Engineering, Vol 32, pp. 1539-1555, 2005.
- [9] Xie N, **Jasionowski A** and Vassalos D, *“A Numerical Method for Predicting Wash Waves of SES”*, Journal of Ship Mechanics, Vol. 9 No.6, ISSN 1007 -7294, 2004.
- [10] Dracos Vassalos, **Jasionowski, A**, Luis Guarin, *“Passenger Ship Safety – Science Paving the Way”*, Marine Systems & Ocean Technology Vol. 1 No. 4 pp. 161-168 June 2006.

- [11] Dracos Vassalos, **Andrzej Jasionowski**, Luis Guarin, *“Passenger Ship Safety – Science Paving the Way 2”*, Journal of Marine Sciences and Technology, Vol 2, No 1-2, December 2006, pp. 63-71.
- [12] Letizia, L, Vassalos, D, and **Jasionowski, A**, *“New insights into ship-floodwater sea dynamics”*, International Shipbuilding Progress, Vol 51, Issue 2/3, 2004, pp 273-293.
- [13] **A Jasionowski**, *“Decision support for ship flooding crisis management”*, Ocean Engineering 38 (2011) 1568–1581.

Conference papers

- [14] Vassalos, D, **Jasionowski, A** and Dodworth, K: *“Assessment of Survival Time of Damaged Passenger/RoRo Vessels”*, 2nd International Workshop on the Stability and Operational Safety of Ships, Osaka, Japan, November 1996, 11pp.
- [15] Vassalos, D, Turan, O, **Jasionowski, A**: *“An Investigation Into The Damage Survivability of High Speed Passenger/Ro-Ro Vessels”*, 6th International Conference on High Speed Marine Vehicles, Copenhagen-Oslo, September 1998, 12 pp.
- [16] Vassalos, D, Halvacioglu, I, **Jasionowski, A**: *“An investigation of the stability and survivability of trimarans”*, 7th International Conference on Stability of Ships and Ocean Vehicles, STAB2000, 7-11 February 2000, Launceston, Tasmania, Australia.
- [17] Vassalos, D, Guarin, L, **Jasionowski, A**, *“Seakeeping and seaworthiness of bulk carriers in extreme weather conditions”*, OC2000, Japan, October 2000.
- [18] Tagg Robert, Tuzcu Cantekin, Pawlowski Maciej, Vassalos Dracos, **Jasionowski Andrzej**, *“Damage Survivability Of Non-Ro/Ro Ships”*, 5th International Workshop On Stability And Operational Safety Of Ships, Sept. 2001, Trieste.
- [19] **Jasionowski Andrzej**, Vassalos Dracos, *“Numerical Modelling Of Damage Ship Stability In Waves”*, 5th International Workshop On Stability And Operational Safety Of Ships, Sept. 2001, Trieste.
- [20] **Jasionowski Andrzej**, Vassalos Dracos, *“Shedding Light Into The Loss Of MV Estonia”*, RINA conference “Learning From Marine Incidents II”, London, UK, 13-14 March, 2002.
- [21] Vassalos, D, Guarin, L, **Jasionowski, A**, *“Experimental and numerical studies on MV Derbyshire”*, MARTECH 2002, Singapore, October 2002.

- [22] **Jasionowski, A**, Vassalos, D, Guarin, L, *“Time-based Survival Criteria for Passenger Ro-Ro Vessels”*, Proceedings of the 6th International Ship Stability Workshop, Webb Institute, New York, October 2002.
- [23] Vassalos, D, **Jasionowski, A**, *“Damaged Ship Hydrodynamics”*, Proceedings of the 6th International Ship Stability Workshop, Webb Institute, New York, October 2002.
- [24] Dracos Vassalos, **Andrzej Jasionowski**, *“Theoretical Treatise Of Damage Ship Stability”*, Workshop On Modern Trends In Theoretical And Applied Mechanics, University College London, 23-24 April 2003.
- [25] Letizia, L, Vassalos, D, **Jasionowski, A**, *“New insights into ship-floodwater-sea dynamics”*, 8th International Conference On Stability Of Ships And Ocean Vehicles, STAB2003, 15-19 September 2003, Madrid, Spain.
- [26] Dracos Vassalos, **Andrzej Jasionowski**, Jakub Cichowicz, *“Weather Criterion – Questions And Answers”*, 8th International Conference On Stability Of Ships And Ocean Vehicles, STAB2003, 15-19 September 2003, Madrid, Spain.
- [27] **Andrzej Jasionowski**, Dracos Vassalos, *“Theoretical Developments On Survival Time Post-Damage”*, Proceedings Of The 7th International Ship Stability Workshop, Shanghai, November 2004.
- [28] Dracos Vassalos, Yoshiho Ikeda, **Andrzej Jasionowski**, Takako Kuroda, *“Transient Flooding On Large Passenger Ships”*, Proceedings Of The 7th International Ship Stability Workshop, Shanghai, November 2004.
- [29] Xie N, **Jasionowski. A** and Vassalos. D, *“Evaluation of wash waves of the Air Lifted Catamaran”*, Proceedings of the 9th International Conference on Practical Design of Ships and Other Floating Structures, Germany, Volume 2, 672-678. ISBN 3-87743 – 808 – 3, 2004.
- [30] Xie N, **Jasionowski A**, Vassalos D, *“Seakeeping analysis of the air lifted vessel”*, Proceedings of IWSH'2005, The 4th International workshop on ship hydrodynamics, Shanghai, September 2005.
- [31] Maciej Pawlowski, Dracos Vassalos and **Andrzej Jasionowski**, *“Risk Characterization of the Required Index R in the New Probabilistic Rules for Damage Stability”*, Proceedings of the 8th International Ship Stability Workshop, Istanbul, October 2005.
- [32] Dracos Vassalos, **Andrzej Jasionowski**, Luis Guarin, *“Passenger Ship Safety – Science Paving the Way”*, Proceedings of the 8th International Ship Stability Workshop, Istanbul, October 2005.

- [33] **Andrzej Jasionowski**, Dracos Vassalos, *“Conceptualising Risk”*, 9th International Conference on Stability of Ships and Ocean Vehicles, Rio de Janeiro, September 2006.
- [34] **Andrzej Jasionowski**, Jakub Cichowicz, *“Predicting Damaged Ship Hydrodynamics”*, 9th International Conference on Stability of Ships and Ocean Vehicles, Rio de Janeiro, September 2006.
- [35] Dag Skaar, Dracos Vassalos, **Andrzej Jasionowski**, *“The use of mesh less CFD methods in modeling progressive flooding and damage stability of ships”*, 9th International Conference on Stability of Ships and Ocean Vehicles, Rio de Janeiro, September 2006.
- [36] Dracos Vassalos, Nan Xie and **Andrzej Jasionowski**, *“Stability and safety of an air lifted catamaran”*, 9th International Conference on Stability of Ships and Ocean Vehicles, Rio de Janeiro, September 2006.
- [37] **Vassalos, D, Jasionowski, A**, Guarin, L, *“Design For Damage Survivability Of Passenger Ships”*, London, RINA Conference Design And Operation Of Passenger Ships, Cruise & Ferry, 25-26th April 2007.
- [38] **Jasionowski, A**, Vassalos, D, *“Insights on the Sinking of MV Estonia”*, Proceedings of the 9th International Ship Stability Workshop, August 2007.
- [39] **Vassalos, D, Jasionowski, A**, *“SOLAS 2009 – Raising the Alarm”*, Proceedings of the 9th International Ship Stability Workshop, August 2007.
- [40] **Jasionowski, A**, Dracos Vassalos, Andrew Scott, *“Ship Vulnerability To Flooding”*, 3rd International Maritime Conference on Design for Safety, Berkeley California, September 26th – 28th, 2007
- [41] Vassalos, D. York, A., **Jasionowski, A.**, Kanerva, M., and Scott, A., *“Design implications of the new harmonised probabilistic damage stability regulations”*. International shipbuilding progress, pp. 339-361, 2007.
- [42] C. Strasser, A. **Jasionowski** And D. Vassalos, *“Calculation Of The Time-To-Flood Of A Box-Shaped Barge By Using CFD”*, June STAB2009, pp. 733-733.
- [43] Maciej Pawłowski, **Andrzej Jasionowski**, *“Assignment of Probability for Flooding Extent in Grounding”*, June STAB2009.
- [44] **Andrzej Jasionowski**, *“Ships and ships accidents – how safe is safe?”*, SAFE SHIPPING ON THE BALTIC SEA, 23rd April 2010, Szczecin, Poland.

- [45] Risto P. S. Jalonen, **Andrzej Jasionowski**, Pekka Ruponen, Nicolas Mery, Apostolos Papanikolaou, Anna-Lea Routi, “*FLOODSTAND – Integrated Flooding Control and Standard for Stability and Crises Management*”, IWSS 2010, Netherlands.
- [46] Cichowicz, J, **Jasionowski, A**, Vassalos, D, “*Uncertainty Assessment in Experiments on a Floating Body in Forced Roll Motion in Calm Water*”, IWSS 2010, Netherlands.
- [47] **Andrzej Jasionowski**, “*Decision support for crises management and emergency support*”, IWSS 2010, Netherlands.
- [48] Cichowicz, J., Tsakalakis, N., Vassalos, D., **Jasionowski, A.**, “Survivability of Passenger Vessels – Re-engineering of the S-Factor”, Proc. ISSW 2011, pp. 405-414.
- [49] Jalonen, R., Ruponen, P., **Jasionowski, A.**, Maurier, P., Kajosaari, M., Papanikolaou, A., 2012, “FLOODSTAND – Overview of Achievements”, Proc. STAB2012, pp. 819- 829.
- [50] Vassalos, D., **Jasionowski, A.**, 2013, “Emergency Response in Ship Flooding Casualties”, Proc. ISSW2013, pp. 259-263.
- [51] Vassalos, D., Boulougouris, E., Guarin, L., **Jasionowski, A.**, Garner, J., 2014, “Regulatory, Design, Operational and Emergency Response Measures for Improving the Damage Survivability of Existing RoPax”, Proc. ISSW2014, pp. 292-300.
- [52] Evangelos Boulougouris, Jakub Cichowicz, **Andrzej Jasionowski**, Dimitris Konovessis, “*Ship Stability & Safety in Damage Condition through Operational Measures*”, Proceedings of the 12th International Conference on the Stability of Ships and Ocean Vehicles, 14-19 June 2015, Glasgow, UK.
- [53] Vassalos, D., Konovessis, D., **Jasionowski, A.** “Life-cycle risk management: a safety case approach”, Proceedings of the IDFS 2013, pp. 37~42, 25-27 November, Shanghai, China.
- [54] **Jasionowski A**, Bulian G, Vassalos D, Francescutto A, Pawlowski, M, Maccari A, 2007, “Modelling survivability”, SAFEDOR, D2.1.3, www.safedor.org.

Technical reports (sample)

- [55] Vassalos, D, Guarin, L, **Jasionowski, A**, “*Statement On Fast Mode Bow Flooding*”, SSRC-06-00-DVLGAJ-15-ER, Paper Presented in Court, June 2000, 43pp.
- [56] **Jasionowski, A**, Vassalos, D, Shu Hong Chai, Samalekos, P, “*Time-based survival criteria for Ro-Ro vessels, Phase II*”, Final Report, January 2001, Internal Report, 765pp.

- [57] **Jasionowski, A**, "*An integrated approach to damage ship survivability assessment*", PhD dissertation submitted for examination in February 2001, University of Strathclyde.
- [58] **Jasionowski, A**, Vassalos, D, "*Benchmark Study on the Capsizing of a Damaged Ro-Ro Passenger Ship in Waves*", Final Report to the ITTC Specialist Committee on the Prediction of Extreme Motions & Capsizing, December 2001.
- [59] Letizia, L, **Jasionowski, A**, Besse, P, Schrøter, C, Papanikolaou, A, "*NEREUS, First Principles Design for Damage Resistance against Capsize*", Second Year Report, 20th February 2002, 131p.
- [60] **Jasionowski, A**, Tuzcu, C, "*Survival criteria for additional effects - sa factor*", Final Report of WP3, of HARDER project - Harmonisation of Rules and Design Rationale, Document No 3-33-D-2003-02-01, The Ship Stability Research Centre, 08 May 2003.
- [61] **Jasionowski, A**, Vassalos, D, "*Research Project RP498 Time-Based Survival Criteria For Passenger Ro-Ro Vessels, Phase III*", Final Report For The UK Maritime And Coast Guard Agency, March 2004.
- [62] **A Jasionowski** and Dracos Vassalos, "*Stability Defficiency Warning System - Prototype Development*", Final Report to DETR, The Ship Stability Research Centre (SSRC), Department of Naval Architecture and Marine Engineering (NAME), The Universities of Glasgow and Strathclyde, April 2004.
- [63] **Jasionowski, A**, "*The IVSTM (Integrated Void Space) Safe Haven Concept*", RINA Safer Ship competition, December 2004.
- [64] **Jasionowski, A**, "*Survival Criteria For Large Passenger Ships*", Final Report, SAFENVSHIP - Safe and Environmental Friendly Passenger Ships, UK DTI, September 2005.
- [65] **Jasionowski, A**, "Research Study on the Sinking Sequence of MV Estonia - PROTEUS3 simulations of foundering scenarios", *VIES01-RE-002-AJ*, 21 May 2008.
<https://www.dropbox.com/s/0dabxhdro75ws/VIES01-RE-002-AJ-PROTEUS3-simulations-of-founding-scenarios.pdf>
- [66] **Jasionowski, A**, "Research Study on the Sinking Sequence of MV Estonia - Virtual demonstrator", *VIES01-RE-004-AJ*, 18 May 2008.
<https://www.dropbox.com/s/7mvw2gly93b1cwx/VIES01-RE-004-AJ-Virtual%20Demonstrator.pdf>
- [67] **Jasionowski, A**, "Technical Summary of the Investigation on The Sinking Sequence of MV Estonia", *VIES01-RE-006-AJ*, 21 May 2008.

<https://www.dropbox.com/s/6c9mu80l37isig7/VIES01-RE-006-AJ-Technical%20Summary%20of%20the%20Investigation%20on%20The%20Sinking%20Sequence%20of%20MV%20Estonia.pdf>

<https://www.dropbox.com/s/hagc62idxd8t3w5/Most%20Likely%20Sinking%20Sequence%20of%20MV%20Estonia%20%28Safety%20at%20Sea%20Ltd%20%C2%A9%202008%29.wmv>

<https://web.archive.org/web/20120330070244/http://www.safety-at-sea.co.uk/mvestonia/>

- [68] **Jasionowski**, A, “*Investigation Into The Safety Of Ro-Ro Passenger Ships Fitted With Long Lower Hold-Phase 2*”, UK MCA RP592, 5th March 2009, Final Report.
- [69] **Jasionowski**, A, Jerzy Prigara, Alistair Murphy, Anthony York, “*SAFEDOR Safety and Environmental impact Study of the Fast Full Displacement Ferry, WP6.11.1, Final Design*”, SAFEDOR-D-6.11.1-2009-01-30-feasibility–rev-2, 31 January 2009.
- [70] **Jasionowski**, A, Markku Minala, Alistair Murphy, “*SAFEDOR Safety and Environmental impact Study of the Fast Full Displacement Ferry, WP6.11.4, Blister Feasibility Assessment*”, SAFEDOR-D-6.11.4-2009-01-30-feasibility–rev-2, 30 April 2009.
- [71] **Jasionowski**, A, “*SAFEDOR Mathematical model of risk - sensitivity studies and quantification of uncertainties*”, D5.6.1, D5.6.2, SAFEDOR-D-5.6.1-2009-03-30-SSRC-MathMod–rev-1, 23 April 2009.
- [72] Qi Chen, Nikos Tsakalakis, **Jasionowski**, A, “*SAFEDOR Mathematical model of risk – physical experiments*”, D5.6.3, SAFEDOR-D-5.6.3-2009-04-30-SSRC-Experiments–rev-1, 17 July 2009.
- [73] **Jasionowski**, A, “*Study of the specific damage stability parameters of Ro-Ro passenger vessels according to SOLAS 2009 including water on deck calculation, Project No EMSA/OP/08/2009*”, November 23, 2011.

<http://emsa.europa.eu/publications/reports/item/1457-damage-stability-of-ro-pax-vessels-final-report.html>

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- [74] **Jasionowski**, A, “*Analytical model of stability deterioration process*”, D4.2, 30 Jan 2012, FLOODSTAND, FP7-RTD- 218532.

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- [75] **Jasionowski**, A, “*Hybrid model of stability deterioration process*”, D4.4, 1 Feb 2012, FLOODSTAND, FP7-RTD- 218532.

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- [76] Qi Chen, **Jasionowski**, A, “*Establish Uncertainty Bounds on time to capsize models*”, D4.5, 15 Dec 2011, FLOODSTAND, FP7-RTD- 218532.

[http://floodstand.aalto.fi/Info/Files/FLOODSTAND_Deliverable4.5\(02Feb\)_R2.pdf](http://floodstand.aalto.fi/Info/Files/FLOODSTAND_Deliverable4.5(02Feb)_R2.pdf)

- [77] **Jasionowski**, A, “*Standard for decision making in crises – loss functions*”, D6.1, 11 April 2012, FLOODSTAND, FP7-RTD- 218532.

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- [81] **Jasionowski**, A, “*Integrated standard for stability in flooded conditions*”, Deliverable D3.5, 30th April 2012, GOALDS-233876.

- [82] **Jasionowski**, A, “*Sunshine – survivability analyses*”, March 2013.

- [83] **Jasionowski**, A, “*Blue Motion – survivability analyses*”, 26th March 2013.

- [84] **Jasionowski**, A, “*Loch Roag – seakeeping analysis*”, S120189, 6th August 2013.

- [85] **Jasionowski**, A, “*Majesty of The Seas – vulnerability assessment*”, S120556, 26th August 2013.

- [86] **Jasionowski**, A, “*Celebrity Century – vulnerability assessment*”, S120561, 3rd October 2013.

- [87] **Jasionowski**, A, “*Empress of The Seas – vulnerability assessment*”, S120560, 26th August 2013.

- [88] **Jasionowski**, A, “*Horizon – vulnerability assessment*”, S120555, 25th August 2013.

- [89] **Jasionowski, A**, “*Azamara Journey – vulnerability assessment*”, S120559, 30th August 2013.
- [90] **Jasionowski, A**, “*MS Vision of The Seas – vulnerability assessment*”, S120558, 3rd October 2013.
- [91] **Jasionowski, A**, “*Navigator of The Seas – design assessment*”, S120572, March 2014.
- [92] **Andrzej Jasionowski**, Henning Luhmann, Rodolphe Bertin, Anna Lea Routi, Mike Cardinale, Graham Harper, “*Evaluation of risk from watertight doors*”, EMSA/OP/10/2013, European Maritime Safety Agency, 14 July 2015.
- [93] **Andrzej Jasionowski** – many confidential written reports and investigations as consultant and expert witness for arbitration and high court hearings (UK, FRANCE, SOUTH KOREA, SOUTH AFRICA, SINGAPORE, HONG KONG, AUSTRALIA) – since ca 1999.

List Of Research And Academic Projects Conducted

P 1	Survival Time of RoRo passenger ships	UK MCA	1996 - 2003
P 2	NEREUS – stability and survivability of RoRo passenger ships	EU	1999 - 2002
P 3	MV DERBYSHIRE Bulk Carrier, (forensic investigations into thermodynamics of adiabatic-to-isothermal air compression process of structural implosion-explosion mechanisms structural failures, simulations of progressive flooding, probabilistic loads, reconstruction, physical model experiments)	UK DETR	1998-2003
P 4	Bulk carriers seakeeping	UK DETR	2000-2003
P 5	SDWS – stability deficiency warning system	UK DETR	2003
P 6	SAFENVSHIP – stability deterioration of cruise ships	UK DTI	2001-2004
P 7	SAFEDOR 2.1 Survivability of RoRo passenger ships	EC	2005 – 2007
P 8	SAFEDOR 6 Risk Based Design of ships	EC	2005 – 2009

P 9	SAFEDOR 5.6 Risk and Safety	EC	2005 – 2009
P 10	FLAGSHIP – Decision Support Systems for flooding crises management	EC	2006 – 2009
P 11	Forensic Study into sinking of MS Estonia https://web.archive.org/web/20120330070244/http://www.safety-at-sea.co.uk/mvestonia/	VINOVA Sweden	2006 – 2008
P 12	RP564 – Long Lower Hold 1 – stability of RoRo passenger ships	UK MCA	2007
P 13	RP592 – Long Lower Hold 2– stability of RoRo passenger ships	UK MCA + Netherlands	2007 – 2009
P 14	ShipArrestor – Casualty Ship Handling (physical model tests, numerical simulations of drifting and manoeuvring of ship without power)	EC	2008 – 2010
P 15	EMSA II – legislation for safety levels for RoRo passenger ships (physical model tests, simulations of stability loss, probabilistic modelling, proposals of safety regulations) http://emsa.europa.eu/publications/reports/item/1457-damage-stability-of-ro-pax-vessels-final-report.html	EMSA	2010 - 2011
P 16	FLOODSTAND – Decision Support for flooding crises management	EC	2009 – 2012
P 17	GOALDS - Task 3.2 – Integrated stability standard for collision and grounding (contribution to) Task 5.1 – Risk modelling	EC	2011
P 18	EMSA III - EMSA/OP/10/2013	EC	2013-2015
P 19	REFRESH – “Green Retrofitting of Existing Ships” - energy efficiency and energy flow modelling, Grant agreement no: 285708	EC	2012-2015

P 20	TARGETS, "Targeted Advanced Research for Global Efficiency of Transportation Shipping", Grant agreement no: 266008	EC	2011-2014
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Sample / notable commercial projects and investigations

P 21	MV ROCKNESS Rock Carrier, Grounding, Capsizing, Sinking, simulations of cargo shifting, progressive flooding, loss of stability and capsizing	TQBCP	2005-2006
P 22	RCGN10 – Survivability assessment of cruise ship Oasis of The Seas	RCI (US)	2007
P 23	RCGN14 – Survivability assessment of cruise ship Oasis of The Seas	RCI (US)	2007 - 2008
P 24	RCGN18 – Onboard survivability	RCI (US)	2009
P 25	iStand decision support system for Celebrity Millennium	Royal Caribbean (US)	2011
P 26	DEEP WATER HORIZON Semisubmersible (analysis of loss of stability during fire-fighting operations)	US	2011
P 27	Oil rig dynamics assessment (WILLHUNTER WILLPHOENIX Semisubmersible)	Tymor Marine Ltd (UK)	2012
P 28	Raking damage assessment for Sunshine	Meyer Weft GmbH (Germany)	2012
P 29	Raking damage assessment for Blue Motion and review in light of Costa Concordia incident	STX Europe (Turku)	2012

P 30	Newbuild vulnerability MC analysis	Deltamarin Ltd (Finland)	2012
P 31	iStand vulnerability simulation for cruise ship	Royal Caribbean (US)	2012
P 32	Supply vessel dynamics analyses	Tymor Marine Ltd	2012
P 33	COSTA CONCORDIA Cruise, Grounding, flooding simulations software	ITALY	2012
P 34	Automated ballasting decision support system – aircraft carrier - Aircraft Carrier Decision Support System Precision Stabilising, development of precision stability management system, installation	ITALY	2012
P 35	Vulnerability analysis – fleet-wide assessment of watertight doors management	US	2012-2014
P 36	Simulation Monte Carlo Vulnerability assessment of “Superspeed” Ropax	NORWAY	2013
P 37	Time domain simulations / probability domain simulations – Oasis 3	US	2013
P 38	Forensic investigation into causation of watertight integrity failures on RoRo passenger ship MV NAPOLEON BONAPARTE RoPax (flooding simulations, loss of stability, physical survey, watertight integrity analysis)	FRANCE	2012-2013
P 39	Titanic II Vulnerability assessment	FINLAND	2013

P 40	Baseline Vulnerability reduction review for cruise ship	US	2013
P 41	Simulation Monte Carlo Vulnerability assessment of cruise ship	US	2014
P 42	Stability management of MV HYUNDAI No.105, simulations of progressive flooding, crew handling during emergency, sinking	Allen & Gledhill, Singapore	2014
P 43	MV MATALIKI – New building dispute – stability and weights – design defect analysis	NEW ZEALAND	2015
P 44	MV ELENI (Collision, Sinking) – investigation into collision navigation, VDR	Singapore	2015
P 45	MV STOLT COMMITMENT, collision analysis, VDR data analyses, navigation analyses	Singapore	2016
P 46	SHEN NENG 1 (investigation into grounding, VDR data analyses, navigation analyses)	Australia	2016
P 47	MV THRASYLVOULOS, MV SEA AMBER, MV ATTALOS I, other bulk carriers and tankers – new build investigations - light running margin, fuel oil consumption, shaft power – sea trials and measurements, torsion vibration	GREECE, KOREA	2015-2016
P 48	MV SEWOL, Sinking, total loss, wreckage survey and investigation of sinking	SOUTH KOREA	2017
P 49	Fish Carrier, Sinking, total loss, Forensic investigation into causation of sinking, wreckage survey	CHINA	2018-2019

P 50	MAERSK HONAM (Containership, Fire Casualty, wreckage assessment, structural integrity)	DUBAI	2019
P 51	Bulk carriers and tankers – 56K, 64K, 114K, 300K – 14 events of failure of stern tube bearings, stern bearing failure, shaft alignment, design defect analysis - forensic investigation, numerical simulations, FEM modelling, hydrodynamic wave loading, propulsion in waves, shaft deflection modelling, oil film dynamics, edge loading	THAILAND, HONG KONG, SINGAPORE, CHINA	2015 - 2021
P 52	Bulk carrier (unsafe port, forensic investigation into grounding, manoeuvring, handling, physical model experiments, probabilistic analysis)	Undisclosed	2013 – ongoing
P 53	Fire/explosion of a bulk carrier in Atlantic	Undisclosed	2020 – ongoing
P 54	Foundering/sinking of a passenger RoRo Ferry MS Estonia, re-investigation https://www.mare-liberum.ee/engv	SA Mare Liberum	2020-ongoing
P 55	Design defect investigation of new type LNG carrier	Undisclosed	2021-ongoing
P 56	Grounding of a containership EVERGIVEN in a narrow channel	Undisclosed	2021-ongoing
P 57	Design/Patents dispute about catamaran series	Undisclosed	2021-2022
P 58	MV SOLOMON TRADER, grounding after alleged mooring failure	Singapore	2022
P 59	Bulk carrier - failure of stern tube bearing and loss of propulsion, survey&forensic investigation, numerical simulations, hydrodynamic wave loading, propulsion in waves, shaft deflection modelling, oil film dynamics, edge loading	Undisclosed	2022-ongoing

P 60	Bulk carrier - failure of slewing bearing in a deck crane, working load determination, safety margins and overload preventer analyses, tribological performance of four-point single row slewing bearing under limit state axial, radial and tilting moment loading regimes, wear and load life cycle determination, numerical simulations of stresses/strains with finite element methods, ISO standards	Undisclosed	2023-2024
P 61	LNG (Type C), boil off rates dispute, thermo-hydrodynamic performance of containment system, conductive heat losses	London/UK, United States	2024-ongoing
P 62	LNG – ME breakdown, balancing system journal bearing failure	United States	2024
P 63	Containership propulsion breakdown, tail-shaft and propeller holding system failure – design defect and warranty dispute	China	2024 – ongoing
P 64	Crank shaft pin bearing failure, bulk carrier m.v. “KOTA PADANG”	INDONESIA	2024 – ongoing

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