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Objective:

Research scientist position in an area involving hydrodynamics, applied mechanics and/or applied mathematics

Summary:

Postdoctoral scholar of hydrodynamics or mechanics with emphasis on fluid-structure interaction and fracture mechanics. Good analytical skills, high performance computing, 20 published contributions, and 4 working languages

Education:

Postdoctoral research fellow, Department of Applied Mathematics, Delft Univ. of Technology, The Netherlands	2005-2006
Ph. D. study, Department of Applied Mathematics, Delft Univ. of Technology, The Netherlands	2001-2005
Postgraduate study, Department of Theoretical and Applied Mechanics, Dnipropetrovsk State Univ., Ukraine	1999-2001
M. Sc., Mechanics and Applied Mathematics, Dnipropetrovsk State Univ., Ukraine	1994-1999

Relevant skills and experience:

LEADERSHIP

- ✓ Manage group in the absence of supervising professor
- ✓ Co-organise scientific seminars at Delft University of Technology
- ✓ Wide contacts and collaboration with researchers and engineers internationally

MECHANICS

- ✓ Develop a new hydroelastic analysis approach to plate-water interaction
- ✓ Investigate interaction of floating elastic plates and water waves
- ✓ Solve the problem of water wave diffraction on a floating plate for a variety of plate shapes and physical parameters
- ✓ Determine stress-strain state under bending loads for a plate interfacially cracked along fixed edge

ENGINEERING AND TECHNICAL

- ✓ Design an appliance for measuring floating plate motion and water wave diffraction on a plate
- ✓ Experiments: fracture mechanics, testing new polymeric materials

COMPUTER

- ✓ Operational systems: Linux, MS Windows
- ✓ Languages: Fortran, C/C++, Java, MPI, html
- ✓ Special software: Maple, Matlab, various mathematics and graphics software
- ✓ General use software: LaTeX, MS Office, OpenOffice
- ✓ Development of computer packages for various problems of hydrodynamics and mechanics
- ✓ Creation and support of web sites

EDUCATIONAL

- ✓ Lectures and practical exercises at University: applied mechanics
- ✓ Help undergraduates
- ✓ Organise short courses and seminars for students
- ✓ Teaching at high school: algebra, geometry, geography

- ✓ Private lessons in mathematics and computing

OTHER EXPERIENCE

- ✓ Reviewing for Journal of Fluids and Structures
- ✓ Captain of the Delft University football team 'Op het Randje'
- ✓ Organizer and coordinator of musical, sport and tourist events on the university scale
- ✓ Commercial manager at trade companies (Dnipropetrovsk)
- ✓ Photographer
- ✓ Popular science and travel writer
- ✓ Internet sports commentator

Work history:

Researcher	Delft Univ. of Technology	2005-2006
PhD-researcher	Delft Univ. of Technology	2001-2005
Visiting research scientist	Institute of Problems of Chemical Physics, Chernogolovka, Russia	2002, 2003
Research engineer	Dnipropetrovsk State Univ.	1998-2001
Web and advertisement designer	McCall Information and Advertisement Agency, Dnipropetrovsk, Ukraine	1997-2001

Languages:

English: fluent, Dutch: fluent, Russian: native, Ukrainian: fluent, German, French, Romanian: basic

Publications and conference presentations:

REFEREED JOURNALS

1. A.I. Andrianov, A.J. Hermans. The Influence of Water Depth on the Hydroelastic Response of a Very Large Floating Platform. *Marine Structures*, 2003, vol. 16, iss. 5, pp.355-371.
2. A.I. Andrianov, A.J. Hermans. Hydroelasticity of a Circular Plate on Water of Finite or Infinite Depth. *Journal of Fluids and Structures*, 2005, vol.20, iss.5, pp.719-733.
3. A.I. Andrianov, A.J. Hermans. Hydroelastic Behavior of a Floating Ring-Shaped Plate. *Journal of Engineering Mathematics*, 2005, *accepted*.
4. A.I. Andrianov A.I., A.J. Hermans. Hydroelastic Analysis of a Floating Plate of Finite Draft. 2006, *Applied Ocean Research*, *submitted*.

CONFERENCE PAPERS AND ABSTRACTS

1. A.I. Andrianov, V.V. Loboda. An Interface Crack along the Fixed Edge of a Plate under Bending Load. *Book of Abstracts II, 4th EuroMECH (Euromech Solids Mechanics Conference)*, Metz, France, 2000, p.412.
2. A.I. Andrianov, A.J. Hermans. A VLFP on Infinite, Finite and Shallow Water. *Proc. 17th IWWWFB, Cambridge, UK, 2002*, pp.1-4.
3. A.I. Andrianov, A.J. Hermans. Diffraction of Surface Waves by VLFP on Infinite, Finite and Shallow Water. *Abstracts of Day on Diffraction' 2002, St. Petersburg*, pp.12-13.
4. A.I. Andrianov, A.J. Hermans. Diffraction of Surface Waves by VLFP on Infinite, Finite and Shallow Water. *Proc. Day on Diffraction' 2002, St. Petersburg, Russia*, pp.13-23.
5. A.I. Andrianov, A.J. Hermans. Hydroelasticity of Quarter-Infinite Plate on Water of Finite Depth. *Proc. 18th IWWWFB, Le Croisic, France, 2003*, pp.1-4.
6. A.I. Andrianov, A.J. Hermans. Hydroelasticity of a Circular Plate in Deep Water. *Abstracts of Day on Diffraction' 2003, St. Petersburg*, p.14.
7. A.I. Andrianov, A.J. Hermans. Hydroelasticity of a Circular Plate on Water of Finite or Infinite Depth. *Proc. 19th IWWWFB, Cortona, Italy, 2004*, pp.7-10.
8. I.V. Andrianov, A.I. Andrianov. Continualization and Discretization: Numerical Aspects. *International Conference on Mathematics and Its Applications, Kuwait, 2004*.

9. A.I. Andrianov, A.J. Hermans. Hydroelastic Behaviour of a Ring-Shaped Plate. *Advanced Problems in Mechanics*, Repino, Russia, 2004, p.21.
10. A.I. Andrianov, A.J. Hermans. Interaction of Free Surface Waves and Floating Elastic Plates. *Day on Diffraction' 2004*, St. Petersburg, p.12.
11. A.I. Andrianov, A.J. Hermans. Hydroelastic Analysis of Floating Plate of Finite Draft. *Proc. 20th IWWWFB*, Longyearbyen, Spitsbergen, Norway, 2005, pp.13-16.
12. Gres L.P., Karakash E.A., Fleyshman Yu.M., Volkova M.M., Oryel G.I., Listopadov V.S., Andrianov A.I. (2005). On increase of efficiency of the draught unit in modern blast furnaces. *Proceedings of the 14th int. conf. "Power and heat engineering in metallurgy"*, Dnipropetrovsk, Ukraine (in Russian).
IWWWFB -- International Workshop on Water Waves and Floating Bodies.

OTHER PUBLICATIONS

1. A.I. Andrianov, V.V. Loboda. An Investigation of a Strip with Interface Cracks along the Fixed Edges under Bending Load. *Collection of Works on Mechanics*. DSU Publisher, Ukraine, 1999, vol. 5, pp.9-18 (in Russian).
2. A.I. Andrianov, V.V. Loboda. An Investigation of a Strip with Interface Cracks along the Fixed Edges under Bending Load (Timoshenko-Reissner method). *DSU Bulletin on Mechanics*. DSU Publisher, Ukraine, 2000, vol. 3, no. 1, pp.170-179 (in Russian).
3. Gres L.P., Karakash E.A., Fleyshman Yu.M., Volkova M.M., Oryel G.I., Listopadov V.S., Andrianov A.I. (2005). On increase of efficiency of the draught unit in modern blast furnaces. *Collection Metallurgical Heat Engineering*, National Metallurgical Academy of Ukraine, Dnipropetrovsk, pp.123-130 (in Russian).

DSU -- Dnipropetrovsk State (National) University.

DOCTORAL DISSERTATION

Alexey I. Andrianov. *Hydroelastic Analysis of Very Large Floating Structures*. Delft University of Technology, Optima Grafische Communicatie, 2005, ISBN 90-8559-081-7, 188p., also at <http://www.andrianov.org>. Supervisor: Prof. A.J. Hermans.

MASTER THESIS

A.I. Andrianov. *An Investigation of a Strip with Interface Cracks along the Fixed Edges under Bending Load*. Dnipropetrovsk State University, 51p. (in Russian). Scientific supervisor: Prof. V.V. Loboda.