

List of publications of A.J. Hermans

1. A.J. Hermans. The field of a spherical wave at high frequencies diffracted by a sphere, *J. of Eng. Math.*, vol. 1, 1967, p.p. 103-112.
2. A.J. Hermans. Diffraction of a wave at high frequencies by an arbitrary smooth object, *J. of Eng. Math.*, vol. 2, 1968, p.p. 141-151.
3. A.J. Hermans. *High-frequency scattering by a convex smooth object*, Thesis, Oct. 1968, TH Delft.
4. A.J. Hermans and J.A. Petterson. A quantum mechanical treatment of the mirror electron microscope, *J. of Eng. Math.*, vol. 4, 1970, p.p. 141-154.
5. A.J. Hermans and G.F.M. Remery. Resonance of moored objects in wave trains, *Proc. of The Twelfth Coastal Eng. Conf.*, Washington, 1970, p.p. 1685-1701 .
6. A.J. Hermans. A note on the stochastic theory of time- delayed epidemics, *J. of Eng. Math.*, vol. 5, 1971, p.p. 289-294.
7. G.F.M. Remery and A.J. Hermans. The slow drift oscillations of a moored object in random seas, *J. of the Society of Petroleum Eng.*, vol. 12, 1972, p.p. 191-199.
8. A.J. Hermans. A perturbation method for the radiation of surface waves, *J. of Eng. Math.*, vol. 6, 1972, p.p. 323-331.
9. A.J. Hermans. A perturbation method for the radiation of short surface waves in three dimensions, *J. of Eng. Math.*, vol. 7, 1973, p.p. 75-85.
10. A.J. Hermans. A matching principle in non-linear ship wave theory at low Froude number, *Delft Progr. Rep.*, vol. 1, 1974, p.p. 1-10.
11. A.J. Hermans. A stochastic model of ship maneuvers, *Marine Traffic Systems*, (ed. C.C. Glansdorp), D.U.P. 1976, p.p. 371-387.
12. C. Korving and A.J. Hermans. The wave resistance for flow problems with a free surface, *Proc. of the second int. conf. on numerical ship hydrodynamics*, Berkeley, 1977, p.p. 285-292.
13. A.J. Hermans and P.G.A. Maas. Amplitude relation for trapped waves around a circular island, *Delft Progr. Rep.*, vol. 2, 1977, p.p. 207-218.
14. A.J. Hermans and M.W.C. Oosterveld (editors). *Proceedings of the symposium on applied mathematics dedicated to the late prof. dr. R. Timman*, Sijthoff & Noordhoff Publ. 1978.
15. A.J. Hermans. Amplitude relation for trapped waves around a circular island, (extended version), *Proc. of the symp. on appl. math.*, 1978, p.p. 13-22.
16. A.J. Hermans. The wave pattern of a ship sailing at low speed, Report No. 84A of the University of Delaware, 1980, p.p. 1-67.

17. A.J. Hermans. The wave pattern of a ship sailing at low speed, *Theory and appl. of singular perturbations*, Springer-Verlag, 1982, p.p. 281-295.
18. A.J. Hermans. Shallow water ship hydrodynamics, *Nieuw Archief voor Wiskunde*, (3), XXX, 1982, p.p. 139-154.
19. A.J. Hermans. Water waves, Vakantiecursus, 1982 MC, VC 36/82, p.p. 15-39.
20. A.J. Hermans. Two dimensional velocity inversion for acoustic waves with incomplete information, *Numerical treatment of inverse problems in differential and integral equations*, Birkhauser, 1983, p.p. 278-289.
21. F.J. Brandsma and A.J. Hermans. A quasi-linear free surface condition in slow ship theory, *Schiffstechnik*, Band 32, 1985, p.p. 25-42.
22. R.H.M. Huijsmans and A.J. Hermans. A fast algorithm for computation of 3-D ship motions at moderate forward speed, *Proc. of the fourth int. conf. on numerical ship hydrodynamics*, Washington, 1985, p.p.
23. R. Timman, A.J. Hermans and G.C. Hsiao. *Water waves in ship hydrodynamics*, Martinus Nijhoff Publ. 1985.
24. A.J. Hermans and R.H.M. Huijsmans. The effect of moderate speed on the motion of floating bodies, *Schiffstechnik*, Band 34, 1987, p.p. 132-149. (TUD Rep. 87-40)
25. Z. Hryniewicz and A.J. Hermans. Effective solution for Rayleigh-type waves in a randomly inhomogeneous medium, *J. of Sound and Vibr.*, vol. 115, 1987, p.p. 351-362. (TUD Rep. 86-22)
26. E.A. Guseinov and A.J. Hermans. A spline collocation method for integral equations of the first kind with logarithmic singularity, TUD REP. 87-39.
27. A. Benschop, A.J. Hermans and R.H.M. Huijsmans. Second order diffraction forces on a ship in irregular waves, *Appl. Ocean Res.*, vol. 9, 1987, p.p. 96-104.
28. Z. Hryniewicz and A.J. Hermans. Effects of randomness of parameters on the mean wave propagation in a viscoelastic medium, TUD Rep. 87-60.
29. A.J. Hermans and F.J. Brandsma. Nonlinear ship waves at low Froude number, *Nonlinear Water Waves*, Springer-Verlag, 1988, p.p. 303-313.
30. Z. Hryniewicz and A.J. Hermans. Response of a randomly inhomogeneous layer overlying a homogeneous halfspace to surface harmonic excitation, *Earthquake eng. and structural dyn.*, vol. 16 1988, p.p. 735-744.
31. Z. Hryniewicz and A.J. Hermans. Free-field response from inclined body waves in a viscoelastic random medium, *Earthquake eng. and structural dyn.*, vol. 18, 1989, p.p. 1025-1040.
32. A.J. Hermans and P.H. van Gemert. A linearized surface condition in low speed hydrodynamics, *Ship Techn. Res. (Schiffstechnik)*, vol. 36, 1989, p.p. 181-196.

33. A.J. Hermans and F.J. Brandsma. Nonlinear ship waves at low froude number, *J. of Ship Res.*, vol. 33, 1989, p.p. 176-194. (ext. of 29)
34. A.J. Hermans and F.J. Brandsma. Low Froude number expansions for the wave pattern and the wave resistance of general ship forms, *Proc. of the seventeenth symp. on naval ship hydrodyn.*, Washington, 1989, p.p. 103-115.
35. A.J. Hermans, E. van Sabben and J.A. Pinkster. A device to extract energy from water waves, *Appl. Ocean Res.*, vol. 12, 1990, p.p. 175-180, (TUD Report 89-34).
36. A.J. Hermans. Slowly moving hull forms in short waves, *J. of Eng. Math.*, vol. 25, 1991, pp 63-75, (TUD Rep. 89-86).
37. C. van der Stoep and A.J. Hermans. The influence of a slowly oscillating movement on the velocity potential, TUD Report 90-47.
38. A.J. Hermans. Second order wave forces and wave drift damping, *Ship Techn. Res. (Schiffstechnik)*, vol. 38, 1991, p.p. 163-172.
39. A.J. Hermans. The diffraction of short free surface waves, a uniform expansion, *Proc. of the sixth international conference on boundary layers* (ed. J.J.H. Miller), Copper Mountain, 1992, p.p. 5-7.
40. A.J. Hermans. The diffraction of short free surface waves, a uniform expansion, *Wave Motion*, vol. 18, 1993, p.p. 103-120.
41. M. Keijzer and A.J. Hermans. Light diffusion in stochastically perturbed media. *J. Opt. Soc. Am. A*, vol. 10, 1993, p.p. 2346-2353.
42. H.J. Prins and A.J. Hermans. Time domain calculations of the second-order drift force of a floating two-dimensional object in current and waves, *J. of Ship Res.*, vol. 38, 1994, p.p. 97-103.
43. H.J. Prins and A.J. Hermans. Time domain calculations of the second-order drift force on a floating 3-d object in current and waves, *Ship Techn. Res. (Schiffstechnik)*, vol. 41, 1994, p.p. 85-92 (TUD-Report 94-18).
44. H.J. Prins and A.J. Hermans. Step-response functions in ship hydrodynamics, *Proceedings of the tenth international Workshop on Water Waves and Floating Bodies*, Oxford, 1995, p.p. 201-205.
45. L.M. Sierrevogel and A.J. Hermans. Absorbing boundary condition for floating objects in current and waves, *Proceedings of the tenth international Workshop on Water Waves and Floating Bodies*, Oxford, 1995, p.p. 229-233.
46. H.J. Prins and A.J. Hermans. Wave-drift damping of a 200 kdwt tanker, *J. of Ship Res.*, vol. 40, 1996, p.p. 136-143.
47. L.M. Sierrevogel and A.J. Hermans. Time-domain calculations on a sailing vessel in waves, study on increasing speed, *Proceedings of the eleventh international Workshop on Water Waves and Floating Bodies*, Hamburg, 1996, 4 pages.

48. L.M. Sier vogel and A.J. Hermans. Absorbing boundary conditions for floating two-dimensional objects in current and waves, *J. of Eng. Math.*, vol. 30, 1996, p.p. 573-586 (also TUD-report 94-41).
49. A.J. Hermans and L.M. Sier vogel. A discussion on the second-order wave forces and wave damping, *Applied Ocean Research*, vol. 18, 1997, p.p. 257-263 (also TUD-Report 96-67).
50. L.M. Sier vogel and A.J. Hermans. Time-domain calculations of first-and second-order forces on a vessel sailing in waves, *Proceedings of the 21st Symposium on Naval Hydrodynamics*, Trondheim, Norway, 1997, 12 pages.
51. T.H.J. Bunnik and A.J. Hermans. A time-domain algorithm for motions of high speed vessels using a new free surface condition, *Proceedings of the 12th international Workshop on Water Waves and Floating Bodies*, Carry-le-Rouet, ESIM, France, 1997, 4 pages.
52. L. M. Sier vogel and A. J. Hermans. Time-domain calculations on a sailing vessel in waves, *Proceedings of the 12th international Workshop on Water Waves and Floating Bodies*, Carry-le-Rouet, ESIM, France, 1997, 4 pages.
53. A.J. Hermans. The excitation of waves in a very large floating flexible platform by short free surface waves, *Proceedings of the 12th international Workshop on Water Waves and Floating Bodies*, Carry-le-Rouet, ESIM, France, 1997, 4 pages.
54. A.J. Hermans. An asymptotic method in ship hydrodynamics, in *Differential Equations: Theory, Numerics and Applications* edited by E.C.W. van Groesen en E. Soewono, Kluwer Academic Publishers, 1997, p.p. 103-125.
55. A.J. Hermans (editor). *Proceedings of the 13th International Workshop on Water Waves and Floating Bodies*, Delft University of Technology, ISBN 90-407-1673-0, 1998, 182 pages.
56. T. H. J. Bunnik and A. J. Hermans, Stability analysis for the 3D unsteady free-surface condition with raised panels, *Proceedings of the 13th IWWWFB*, ISBN 90-407-1673-0, Alphen aan den Rijn, TUDelft, The Netherlands, 1998,
57. A.J. Hermans. Low frequency second-order wave-drift forces and damping, *J. of Eng. Math.*, vol. 35, 1999, p.p. 181-198.
58. T. H. J. Bunnik and A. J. Hermans, Comparison between three steady flow approximations in a linear time-domain model, *Proceedings of the 14th IWWWFB*, Port Huron, University of Michigan, USA, 1999, p. 17-20.
59. A. J. Hermans, The Role of Applied Mathematics in Hydrodynamics for Ships and Floating Offshore Structures, Georg Weinblum Lecturej/a₂, published in *Ship Technology Research (Schiffstechnik)*, vol. 46, p.p. 59-80, 1999.
60. R. Guéret and A. J. Hermans, Behavior of a ship with elastic distortions in periodic waves, *Proceedings of the 15th IWWWFB*, ISBN 965-274-288-0, Caeserea, Tel-Aviv University, Israel, 2000, 182 p. 67-71.

61. A. J. Hermans and L. M. Sierrevogel, Applied Analysis in Ship Hydrodynamics, in *Analytic and computational methods in scattering and applied mathematics*, Research Notes in Mathematics, eds F. Santosa and I. Stakgold, Chapman and Hall/CRC, vol. 417, 135-149, 2000, (ISBN 1-58488-159-3).
62. A. J. Hermans, A Boundary Element Method for the Interaction of Free-Surface Waves with a Very Large Floating Flexible Platform, *Journal of Fluids and Structures*, vol. 14, p.p. 943- 956, 2000.
63. A. J. Hermans, A geometrical-optics approach for the deflection of a floating flexible platform, *Applied Ocean Research*, vol. 23, p.p. 269- 276, 2001.
64. R. Guéret and A. J. Hermans, Air Cushion under Floating Offshore Structure, *Proceedings of the 16th IWWFEB*, ISBN 4-9900892-0-0, Miyajima, Hiroshima University, Japan, 2001, 188 pages, p. 45-49.
65. A. J. Hermans, Geometrical-Optics for the Deflection of a Very Large Floating Flexible Platform, *Proceedings of the 16th IWWFEB*, ISBN 4-9900892-0-0, Miyajima, Hiroshima University, Japan, 2001, 188 pages, p. 53-57.
66. A. I. Andrianov and A. J. Hermans, A VLFP on infinite, finite and shallow water, *Proceedings of the 17th IWWFEB*, Cambridge, WS Atkins, UK, 2002, p. 1-5
67. A. J. Hermans, Interaction of waves with a floating dock, *Journal of Engineering Mathematics*, vol. 45, p.p. 39-53, 2003.
68. A. J. Hermans, The ray method for the deflection of a floating flexible platform in short waves, *Journal of Fluids and Structures*, vol. 17, p.p. 593- 602, 2003.
69. A. I. Andrianov and A. J. Hermans, The influence of water depth on the hydroelastic response of a very large floating platform, *Marine Structures*, vol. 16, p.p. 355- 371, 2003.
70. A. I. Andrianov and A. J. Hermans, Hydroelasticity of quarter-infinite plate on water of finite depth, *Proceedings of the 18th IWWFEB*, Le Croisic, EC-Nantes, France, 2003,
71. A. J. Hermans, Deflection of a Very Large Floating Platform with variable elastic properties, *Proceedings of the 18th IWWFEB*, Le Croisic, EC-Nantes, France, 2003,
72. A. J. Hermans, Interaction of free-surface waves with floating flexible strips, *Journal of Engineering Mathematics*, vol. 49, p.p. 133-147, 2004.
73. A. I. Andrianov and A. J. Hermans, Hydroelasticity of elastic circular plate, *Proceedings of the 19th IWWFEB*, Cortona, INSEAN, Italy, 2004,
74. R. H. M. Huijsmans, A. J. Hermans and R. Moerkerken, Diffraction of steep waves for stationary vessels, *Proceedings of the 19th IWWFEB*, Cortona, INSEAN, Italy, 2004,
75. A. J. Hermans, Added resistance by means of time-domain models in seakeeping, *Proceedings of the 19th IWWFEB*, Cortona, INSEAN, Italy, 2004,
76. A. J. Hermans, Added resistance by means of time-domain models in seakeeping, *Journal of Ship Research*, vol. 49, p.p. 252-262, 2005.

77. A. I. Andrianov and A. J. Hermans, Hydroelastic analysis of floating plate of finite draft, *Proceedings of the 20th IWWFEB*, Longyearbyen, Spitsbergen, Norway, 2005,
78. A. I. Andrianov and A. J. Hermans, Hydroelasticity of a circular plate on water of finite and infinite depth, *Journal of Fluids and Structures*, vol. 20, p.p. 719-733, 2005.
79. A. J. Hermans, Free-surface wave interaction with a thick flexible platform, *Proceedings of the 21th IWWFEB*, Loughborough, UK, 2006.
80. A. I. Andrianov and A. J. Hermans, Hydroelastic behavior of a floating ring-shaped plate, *Journal of Engineering Mathematics*, 54, 31-48, 2006.
81. A. I. Andrianov and A. J. Hermans, AOR-MK16 Hydroelastic analysis of a floating plate of finite draft, *Applied Ocean Research*, to appear in 2007.
82. A. J. Hermans, Free-surface Wave Interaction with a Thick Flexible Dock or Very Large Floating Platform, *Journal of Engineering Mathematics*, to appear in 2007.