

# List of Publications and Patents

P. Neittaanmäki\*

October 18, 2011

## A Peer-reviewed scientific articles

### A1 Journal article (refereed), original research

1. P. Neittaanmäki. Randwertaufgaben zur Plattengleichung. *Ann. Acad. Sci. Fenn. Ser. A I Math. Dissertationes*, 16:71 pp., 1978. MR 80b:35065.
2. P. Neittaanmäki. Dirichletsche und Neumannsche Randwertaufgaben in der statischen Elastizitätstheorie. *Ann. Acad. Sci. Fenn. Ser. A I Math.*, 5:227–236, 1980. MR 82m:35044.
3. P. Neittaanmäki and R. Picard. Error estimates for the finite element approximation to a Maxwell-type boundary value problem. *Numer. Funct. Anal. Optim.*, 2:267–285, 1980. MR 82b:78006.
4. P. Neittaanmäki and J. Saranen. Finite element approximation of electromagnetic fields in three dimensional space. *Numer. Funct. Anal. Optim.*, 2:487–506, 1980. MR 82b:78005.
5. P. Neittaanmäki and R. Picard. On the finite element method for time-harmonic acoustic boundary value problems. *Comput. Math. Appl.*, 7:127–138, 1981. MR 82g:76031.
6. P. Neittaanmäki and J. Saranen. Fehlerasymptotik für die Finite-Element Approximation einer akustischen Randwertaufgabe. *Z. Angew. Math. Mech.*, 61:T298–T300, 1981.
7. P. Neittaanmäki and J. Saranen. On the finite element approximation for Maxwell’s problem in polynomial domains of the plane. *Applicable Anal.*, 12:73–83, 1981. MR 82h:65085.
8. P. Neittaanmäki and J. Saranen. Semi-discrete Galerkin approximation method applied to initial boundary value problems for Maxwell’s equations in anisotropic, inhomogeneous media. *Proc. Roy. Soc. Edinburgh Sect. A*, 89:125–133, 1981. MR 82h:65070.
9. P. Neittaanmäki and J. Saranen. Finite element approximation of vector fields given by curl and divergence. *Math. Methods Appl. Sci.*, 3:328–335, 1981. MR 83e:65193.
10. P. Neittaanmäki and J. Saranen. On finite element approximation of the gradient for solution of Poisson equation. *Numer. Math.*, 37:333–337, 1981. MR 82h:65086.
11. P. Neittaanmäki and J. Saranen. A mixed finite element method for the heat flow problem. *BIT*, 21:342–346, 1981. MR 82m:65092.
12. P. Neittaanmäki and R. Picard. On the convergence of the finite element approximation of eigenfrequencies and eigenvectors to Maxwell’s boundary value problem. *Ann. Acad. Sci. Fenn. Ser. A I Math.*, 6:255–271, 1981.
13. P. Neittaanmäki. Über die Nichtexistenz der Eigenwerte des Laplace-Operators in einigen unbeschränkten Gebieten. *Z. Angew. Math. Mech.*, 62:T295–T297, 1982.
14. P. Neittaanmäki and J. Saranen. The radiation problem for the Schrödinger operator in some domains with noncompact boundaries. *Soc. Sci. Fenn. Comment. Phys.-Math.*, 52:14 pp., 1982. MR 83m:35041.
15. P. Neittaanmäki and J. Saranen. A modified least squares FE-method for ideal fluid flow problems. *J. Comput. Appl. Math.*, 8:165–170, 1982.
16. P. Neittaanmäki. On the numerical solution of Helmholtz’s equation by different finite element methods. *Z. Angew. Math. Mech.*, 63(5):T364–T366, 1983.
17. J. Haslinger and P. Neittaanmäki. Penalty method in design optimization of systems governed by a unilateral boundary value problem. *Ann. Fac. Sci. Toulouse Math. Serie*, 5:199–216, 1983.
18. P. Kuhno, P. Neittaanmäki, and T. Tiihonen. Sorvipöllin keskittämismenetelmien vertailu tietokonesimulointia käyttäen (Comparison of bolt centering methods using computer simulation). *Paperi ja Puu (Paper and Wood)*, 10:626–629, 1983. (In Finnish, English summary).
19. J. Haslinger and P. Neittaanmäki. On the existence of optimal shapes in contact problems. *Numer. Funct. Anal. Optim.*, 7(2–3):107–124, 1984/85.

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20. M. Křížek and P. Neittaanmäki. On the validity of Friedrichs' inequalities. *Math. Scand.*, 54:17–26, 1984.
21. J. Haslinger and P. Neittaanmäki. On different finite element methods for approximating the gradient of the solution to the Helmholtz equation. *Comput. Methods Appl. Mech. Engrg.*, 42:131–148, 1984.
22. J. Haslinger and P. Neittaanmäki. Optimal shape design of systems governed by some boundary value problems. *Z. Angew. Math. Mech.*, 64:T279–T281, 1984.
23. P. Neittaanmäki and T. Tiihonen. Mathematical programming methods for an optimal shape design problem. *Z. Angew. Math. Mech.*, 64:T339–T340, 1984.
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35. M. Křížek and P. Neittaanmäki. Internal FE approximation of spaces of divergence-free functions in three-dimensional domains. *Internat. J. Numer. Methods Fluids*, 6(11):811–817, 1986.
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## G Theses

### G4 Doctoral dissertation (monograph)

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## H Patents and invention disclosures

### H1 Granted patent

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