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Research interest: Operator Theory; Numerical Analysis; Control Theory; Finite Element Approximations for Eigenvalue Problems; Scientific Computing; Knowledge Discovery

Recent publications:

- [1] L. Grubišić, A. Grbić, "Discrete perturbation estimates for eigenpairs of Fredholm operator-valued functions", **Applied Mathematics and Computation**, to appear-available on line, 16 pages, 2015.
- [2] L. Grubišić, D. Kressner "On the eigenvalue decay of solutions to operator Lyapunov equations", **Systems & Control Letters** 73, 42-47, 2014.
- [3] L. Grubišić, N. Truhar, S Miodragović "The rotation of eigenspaces of perturbed matrix pairs II", **Linear and Multilinear Algebra** 62 (8), 1010-1031, 2014.
- [4] RE. Bank, L. Grubišić, JS. Owall "A framework for robust eigenvalue and eigenvector error estimation and Ritz value convergence enhancement", **Applied Numerical Mathematics** 66, 1-29, 2013.
- [5] L. Grubišić, V. Kostykin, KA. Makarov, K. Veselić, "The $\tan 2\theta$ theorem for indefinite quadratic forms", **Journal of Spectral Theory** 3 (1), 83-100, 2013.

Selected publications:

- [1] L. Grubišić and K. Veselić „On weakly formulated Sylvester equations and applications“ **Integral Equations and Operator Theory**, 58 (2007), 175 – 204
- [2] L. Grubišić „On eigenvalue and eigenvector estimates for nonnegative definite operators“ **SIAM Journal on Matrix Analysis and Applications**, 28 (2006), 1097 – 1125
- [3] L. Grubišić and J. S. Owall „On estimators for eigenvalue/eigenvector approximations“, 2007, submitted to **Mathematics of Computation**, MPI MIS Leipzig Preprint Nr. 18/2007
- [4] L. Grubišić, N. Limić and V. Valković „On Simulations of Random Fields on Bounded Domains“ **Proceedings of the Conference on Applied mathematics and computation (Dubrovnik, 1999)**, Univ. Zagreb Dep. Math., Zagreb, 2001., 233 – 243
- [5] L. Grubišić „Ritz value estimates and applications in Mathematical Physics“ published by **dissertation.de - Verlag im Internet GmbH**; ISBN: 3-89825-998-6