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Professor, Department of Mathematics, University of Zagreb PhD Carnegie Mellon University, 1992

<u>Research interest</u>: Mathematical analysis: partial differential equations and calculus of variations, function spaces, Applied mathematics: continuum physics and optimisation.

Recent publications:

[1] N. Antonić, M. Vrdoljak: Parabolic H-convergence and small-amplitude homogenization, Applicable Analysis 88 (2009) 10-11, 1493-1508
[2] N. Antonić, M. Lazar: Parabolic variant of H-measures in homogenisation of a model problem based on Navier– Stokes equation, Nonlinear Analysis B: Real World Applications 11 (2010) 6, 4500-4512
[3] N. Antonić, K. Burazin: Boundary operator from matrix field formulation of boundary conditions

for Friedrichs systems, **Journal of Differential Equations 250** (2011) 9, 3630-3651 [4] N. Antonić, D. Mitrović: *H-distributions: an extension of H-measures to an L^p – L^q setting*, **Abstract**

and Applied Analysis (In press)

[5] N. Antonić, K. Burazin, M. Vrdoljak: *Second-order equations as Friedrichs systems*, **Nonlinear Analysis B: Real World Applications** (in press)

Selected publications:

[1] N. Antonić: *Memory effects in homogenisation: linear second-order equations*, **Archive for Rational Mechanics Analysis 125** (1993) 1--24

[2] N. Antonić: *H-measures applied to symmetric systems*, **Proceedings of the Royal Society of Edinburgh A 126** (1996) 1133-1155

[3] N. Antonić, M. Vrdoljak: Sequential laminates in multiple-state optimal design

problems, Mathematical Problems in Engineering (2006) Art. ID 68695, 14 pp.

[4] N. Antonić, M. Lazar: *H-measures and variants applied to parabolic equations*, **Journal of Mathematical Analysis and Applications 343** (2008) 1, 207-225

[5] N. Antonić, K. Burazin: *Intrinsic boundary conditions for Friedrichs systems*, **Communications in Partial Differential Equations 35** (2010) 9, 1690-1715