

## LIST OF PUBLICATIONS, UPDATED TO JULY 2008

ELISABETTA ROCCA

### 1 Published papers on International Journals

1. E. ROCCA: *Asymptotic Analysis of a conserved Phase-Field Model with memory for vanishing time relaxation*, Advances in Mathematical Sciences and Applications, **10** No. 2 (2000), 899–916.
2. E. ROCCA: *The Conserved Penrose-Fife Phase Field Model with Special Heat Flux Laws and Memory Effects*, Journal of Integral Equations and Applications, **14** No. 4 (2002), 425–466.
3. E. ROCCA: *Some Remarks on the Conserved Penrose-Fife Phase Field Model with Memory Effects*, in “Mathematical Models and Methods for Smart Materials”, M. Fabrizio, B. Lazzari, and A. Morro (ed.), Ser. Adv. Math. Appl. Sci., **62**, World Scientific Publishing Co. (2002), 313–322.
4. G. GILARDI, E. ROCCA: *Su un modello conservativo di tipo Penrose-Fife con condizioni di Neumann*, Istituto Lombardo (Rend. Sc.) A, **136-137** (2002–2003).
5. E. ROCCA, G. SCHIMPERNA: *The Conserved Penrose-Fife system with Fourier heat flux law*, Nonlinear Anal., **53** (2003), 1089–1100.
6. E. ROCCA, G. SCHIMPERNA: *Singular Limits of a Conserved Penrose-Fife phase field Model with special Heat Flux laws and Memory effects*, Asymptotic Analysis, **36** No. 3–4 (2003), 285–301.
7. E. ROCCA: *The Conserved Penrose-Fife System with Temperature-dependent Memory*, Journal of Mathematical Analysis and Applications, **287** No. 1 (2003), 177–199.
8. E. ROCCA: *Existence and uniqueness for the parabolic conserved phase field model with memory*, Communication in Applied Analysis, **8** No. 1 (2004), 27–46.
9. P. COLLI, G. GILARDI, E. ROCCA, G. SCHIMPERNA: *On a Penrose-Fife phase-field model with non-homogeneous Neumann boundary condition for the temperature*, Differential and Integral Equations, **17** No. 5–6 (2004), 511–534.
10. E. ROCCA, G. SCHIMPERNA: *Universal attractor for some singular phase transition systems*, Physica D, **192** (2004), 279–307.
11. E. ROCCA, G. SCHIMPERNA: *Universal attractor for a Penrose-Fife system with special heat flux law*, Mediterranean Journal of Mathematics, **1** (2004), 109–121.
12. E. ROCCA: *Well-posedness and regularity for a parabolic-hyperbolic Penrose-Fife phase field system*, Appl. Math., **50** No. 5 (2005), 415–450.

13. A. LORENZI, E. ROCCA, G. SCHIMPERNA: *Direct and inverse problems for parabolic integro-differential systems of Caginalp type*, Adv. Math. Sci. Appl., **15** No. 1 (2005), 227–263.
14. M. FRÉMOND, E. ROCCA: *Well-posedness of a phase transition model with the possibility of voids*, Math. Models Methods Appl. Sci., **16** No. 4 (2006), 559–586.
15. E. ROCCA, G. SCHIMPERNA: *Global attractor for a parabolic-hyperbolic Penrose-Fife phase field system*, Discrete Contin. Dyn. Syst., **15** No. 4 (2006), 1192–1214.
16. P. COLLI, M. FRÉMOND, E. ROCCA, K. SHIRAKAWA: *Attractors for the 3D Frémond model of shape memory alloys*, Chinese Annals of Mathematics, Ser. B, **27** (2006), 683–700.
17. A. LORENZI, E. ROCCA: *Approximation of an inverse problem for a parabolic integro-differential system of Caginalp type*, in “Dissipative phase transitions” (ed. P. Colli, N. Kenmochi, J. Sprekels), Series on Advances in Mathematics for Applied Sciences, Vol. 71, World Sci. Publishing (2006), 151–176.
18. G. GILARDI, E. ROCCA: *Convergence of phase field to phase relaxation governed by the entropy balance with memory*, Math. Meth. Appl. Sci., **29** (2006), 2149–2179.
19. P. KREJČÍ, E. ROCCA, J. SPREKELS: *Nonlocal temperature-dependent phase-field models for non-isothermal phase transitions*, J. London Math. Soc., **76** No. 2 (2007), 197–210.
20. E. BONETTI, E. ROCCA: *Global existence and long-time behaviour for a singular integro-differential phase-field system*, Commun. Pure Appl. Anal, **6** (2007), 367–387.
21. A. LORENZI, E. ROCCA: *Weak solutions for the fully hyperbolic phase-field system of conserved type*, Journal of Evolution Equations, **7** (2007), 59–78.
22. P. KREJČÍ, E. ROCCA, J. SPREKELS: *Nonlocal phase-field models for non-isothermal phase transitions with non-constant specific heat*, Interfaces and Free Boundaries, **9** (2007), 285–306.
23. G. GILARDI, E. ROCCA: *Well posedness and long time behaviour for a singular phase field system of conserved type*, IMA J. Appl. Math., **72** (2007), 498–530.
24. E. BONETTI, M. FRÉMOND, E. ROCCA: *A new dual approach for a class of phase transitions with memory: existence and long-time behaviour of solutions*, J. Math. Pure Appl., **88** (2007), 455–481.
25. P. COLLI, P. KREJČÍ, E. ROCCA, J. SPREKELS: *Nonlinear evolution inclusions arising from phase change models*, Czech. Math. J., **57** (2007), 1067–1098.
26. A. LORENZI, E. ROCCA: *Identification of two memory kernels in a fully hyperbolic phase-field system*, J. Inverse Ill-Posed Probl., **16** (2008), 147–174.

## 2 Papers to appear on International Journals

27. M. FRÉMOND, E. ROCCA: *Solid liquid phase changes with different densities*, preprint arXiv:0806.2915v1 (2008), to appear on “Q. Appl. Math.”.
28. E. ROCCA, R. ROSSI: *A nonlinear degenerating PDE system modelling phase transitions in thermoviscoelastic materials*, Quaderno dell’Università di Brescia No.12/2007 (2007), to appear on “J. Differential Equations”.
29. E. ROCCA, R. ROSSI: *Global existence of strong solutions to the one-dimensional full model for phase transitions in thermoviscoelastic materials*, Quaderno dell’Università di Brescia No.14/2008 (2008), 1–49, to appear on “Appl. Math.”.

## 3 Preprints

30. E. FEIREISL, H. PETZELTOVÀ, E. ROCCA: *Existence of solutions to some models of phase changes with microscopic movements*, preprint Nečas Center for Mathematical Modelling (Prague) No.2008-009 (2008).

## 4 Theses

- L. E. ROCCA: *Analisi asintotica rispetto al parametro di rilassamento in tempo di un modello di campo di fase conservativo con memoria*, Tesi di Laurea, Università degli Studi di Pavia, 1999.
- D. E. ROCCA: *Some phase transition models of Penrose-Fife type*, PhD-Thesis, Università degli Studi di Pavia, 2003.