Short CV of Salvatore A. Marano (March 7, 2022)

S.A. Marano graduated in Mathematics at the University of Catania in 1987 and is full professor of Mathematical Analysis since 2001.

Scientific activity

He wrote more than 90 research papers published in international mathematical journals, as Advances in Differential Equations, Advances in Nonlinear Analysis, Annali di Matematica Pura ed Applicata, Applicable Analysis, Communications in Contemporary Mathematics, Communications on Pure and Applied Analysis, Differential and Integral Equations, Discrete and Continuous Dynamical Systems, Electronic Journal of Differential Equations, Journal of Differential Equations, Journal of Mathematical Analysis and Applications, Nonlinear Analysis, Nonlinear Differential Equations and Applications, Proceedings of the American Mathematical Society, Proceedings of the Edinburgh Mathematical Society, Set-Valued Analysis, SIAM Journal on Mathematical Analysis, etc.

S.A. Marano collaborated with both Italian and foreign researchers, among whom L. Gorniewicz from the University of Torun (Poland), A. Moussaoui from the University of Bejaia (Algeria), D. Motreanu from the University of Perpignan (France), N.S. Papageorgiou from the National Technical University of Athens (Greece), K. Perera from the Florida Institute of Technology (USA), and V. Staicu from the University of Evora (Portugal).

In 1989 he won the prize for young researchers in Mathematics held by the Gioenia Academy of Catania and in 1991 he won one of the three prizes offered by the "Francesco Severi" Foundation of Arezzo.

S.A. Marano has been visiting professor at the Universities of Torun, in 1994, of Evora, in 1995, and of Perpignan, in 2002.

He is reviewer of Mathematical Reviews, co-editor in chief of the journal Open Mathematics, and associate editor of the following journals: 1) Discussiones Mathematicae Differential Inclusions, Control and Optimization; 2) Journal of Abstract Differential Equations and Applications. Moreover, he is constantly consulted, as a referee, by many international mathematical journals.

From 2015 to 2021, S.A. Marano was a member of the Scientific Committee of the Italian Mathematical Union. Since 2022, he belongs to the Scientific Commettee of GNAMPA.

In the past, he studied both ordinary and partial differential equations and inclusions, fixed points for some classes of multifunctions, as well as the

Boltzmann equation for semiconductors. More recently, his research activity has been devoted to critical point theory for non-smooth functionals possibly defined on convex closed sets and applications to hemi-variational or variational-hemi-variational inequalities, differential equations with discontinuous nonlinearities, etc. Combining variational methods with truncation, perturbation, and comparison techniques, he investigated the existence of both constant-sign and nodal solutions to Dirichlet, Neumann, and Robin boundary-value problems for different types of elliptic equations or systems, sometimes depending on a positive real parameter. At present, he is studying fractional differential equations and quasilinear elliptic problems, in a bounded domain or on the whole space, with both singular and convection terms.

Teaching activity

S.A. Marano recently held the following courses:

1. Mathematical Analysis I and II, for Physics degree, at the University of Catania.

2. Functional Analysis, Real Analysis, Partial Differential Equations, Complex Analysis and Integral Trasforms, for Mathematics degree, at the University of Catania.

Resent papers (last three years)

1) G. Barletta – P. Candito – S.A. Marano – K. Perera, *Multiplicity results for critical p-Laplacian problems,* Ann. Mat. Pura Appl. **196** (2017), 1431–1440.

2) S.A. Marano – S.J.N. Mosconi – N.S. Papageorgiou, *On a (p,q)-Laplacian problem with parametric concave term and asymmetric perturbation,* Rend. Lincei Mat. Appl. **29** (2018), 109–125.

3) S.A. Marano – S.J.N. Mosconi, *Some recent results on the Dirichlet problem for (p,q)-Laplace equations,* Discrete Contin. Dyn. Syst. Ser. S **11** (2018), 279–291.

4) S.A. Marano – N.S. Papageorgiou, *Asymmetric Robin problems with p-Laplacian and indefinite potential,* Electron. J. Diffferential Equations, Vol. 2018 (2018), No. 127, pp. 1–21.

5) S.A. Marano – S.J.N. Mosconi, *Asymptotics for optimizers of the fractional Hardy-Sobolev inequality,* Commun. Contemp. Math. **21** (2019), 33 pages.

6) U. Guarnotta – S.A. Marano – N.S. Papageorgiou, *Multiple nodal solutions to a Robin problem with sign-changing potential and locally defined reaction,* Rend. Lincei Mat. Appl. **30** (2019), 269–294.

7) S.A. Marano – G. Marino – A. Moussaoui, *Singular quasilinear elliptic systems in $\mathbb{R}^N$*, Ann. Mat. Pura Appl. **198** (2019), 1581–1594.

8) S.A. Marano – G. Marino – N.S. Papageorgiou, *On a Dirichlet problem with (p,q)-Laplacian and parametric concave-convex nonlinearity,* J. Math. Anal. Appl. **475** (2019), 1093–1107.

9) S.A. Marano – P. Winkert, *On a quasilinear elliptic problem with convection term and nonlinear boundary condition,* Nonlinear Anal. **187** (2019), 159–169.