**Dr. Angela Pistoia**

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Angela Pistoia is full professor in Sapienza University of Rome. She got her PhD in 1990 in the University of Pisa. In her career, she has been a researcher in the University of Pisa and in 1997, after she had twins, she has been an associate professor in Sapienza University of Rome. Her research interest are nonlinear partial differential equations, variational and topological methods in nonlinear analysis, conformal geometry.
She is an expert in the analysis of bubbling phenomena in several critical nonlinear elliptic problems, such as the Yamabe equation, the Liouville equation and Keller-Segel equations. In particular, she got the first result concerning the existence of infinitely many sign changing solutions for the well known Yamabe equation on the sphere.
She published almost 150 papers in high level international mathematical journals. She has a long list of collaborators. Among those, more than 15 are young researchers.
She has organized more than 30 international conferences and has delivered more than 100 talks in her career. She has been invited as visiting professor in many italian and foreign universities.
She has been the principal investigator of bilateral agreement grants between Sapienza and many universities worldwide.
She is also very active in the gender equality field.

Title: On some properties of Steklov eigenfunctions

Abstract:
I will focus on a couple of properties of the eigenfunctions of Steklov problem on a compact Riemannian manifold with boundary. First, we give a precise count of the interior critical points of a Steklov eigenfunction in terms of the Euler characteristic of the manifold and of the number of its sign changes the boundary. Based on a joint work with Luca Battaglia (University of Roma Tre) and Luigi Provenzano (Sapienza University of Roma) Next, we disprove the conjectured validity of Courant`s theorem for the traces of Steklov eigenfunctions building a Riemannian metric for which the n-th eigenfunction has an arbitrary number of nodal domains on the boundary. Based on a joint work with Alberto Enciso (ICMAT Madrid) and Luigi Provenzano (Sapienza University of Roma) .