AWM-Sadosky Research Prize

The Executive Committee of the Association for Women in Mathematics has established the AWM-Sadosky Prize in Analysis. This prize will be awarded every other year, beginning in 2014. The purpose of the award is to highlight exceptional research in analysis by a woman early in her career. The field will be broadly interpreted to include all areas of analysis. Candidates should be women, based at U.S. institutions who are within 10 years of receiving their PhD, or have not yet received tenure, at the nomination deadline.

The AWM-Sadosky Research Prize serves to highlight to the community outstanding contributions by women in the field and to advance the careers of the prize recipients. The award is named for Cora Sadosky, a former president of AWM, and made possible by generous contributions from Cora's husband Daniel J. Goldstein, daughter Cora Sol Goldstein, and friends Judy and Paul S. Green and Concepción Ballester.

The inaugural 2014 AWM-Sadosky Research Prize in Analysis is awarded to **Svitlana Mayboroda** in recognition of her fundamental contributions to harmonic analysis and partial differential equations. Her research has centered on boundary value problems for second and higher order elliptic equations in non-smooth media, that is, under minimal regularity assumptions on the coefficients and/or the underlying domain's boundary. In particular Mayboroda studies problems aimed at understanding how irregular geometries or internal inhomogeneities of media affect the behavior of the physical system in question, an area where she has made a number of deep and original contributions.

Jill Pipher and Svitlana Mayboroda

Her talent and imagination, praised by world leaders in the field, is also evident in her recent work with Maz'ya on regularity in all dimensions for the polyharmonic Green's function in general domains and of the Wiener test for higher order elliptic equations, which in turn relies on a new notion of capacity in this case.

This is the first result of its kind for higher order equations, showing remarkable creativity and deep insight. Svitlana Mayboroda's contributions have opened up fundamental new paths in this uncharted territory and she has been a major driving force behind it.

Mayboroda is an outstanding and talented young analyst whose work is already of lasting impact. She is the recipient of a Sloan Foundation fellowship and an NSF CAREER award. Her professional trajectory is remarkable, and her future potential enormous. She richly deserves the recognition of the 2014 AWM-Sadosky Research Prize. Cora Sadosky would be proud.

Response from Mayboroda

I am greatly honored and immensely delighted to receive the inaugural AWM-Sadosky Prize in Analysis. Most of all, I am truly excited that the beautiful mathematics at the core of the cited results has received such a high recognition. I was so very lucky to have had wonderful teachers, collaborators, and colleagues. It is impossible to properly thank here all the people who have deeply marked my path. I am greatly thankful to Yuriy Gandel and Marius Mitrea for their early guidance, to Vladimir Maz'ya for his incredible mathematical generosity and passion, to Jill Pipher for her continuous support and truly life-changing inspiration, to Steve Hofmann for years of exhilarating collaboration, to Marcel Filoche for a breathtaking intro- duction into the world of physics, to Carlos Kenig, Guy David, Alexander Volberg, Rodrigo Bañuelos, to my students and postdocs. Above all, I am indebted to my family for their constant belief in me and constant skepticism, both invariably stimulating.

Finally, I would like to express my deep gratitude to the Association for Women in Mathematics and to the many people, men and women, tirelessly fighting for the equal opportunities in our profession. It is a particular honor to receive the award commemorating Cora Sadosky. I am very privileged to have had a chance to meet her and to be one of the many young people with whom she so generously shared her mathematics, her vision of the profession, and her support, to be touched and inspired by her remarkable personality.