PRESS RELEASE

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Svitlana Mayboroda wins the inaugural AWM-Sadosky Research Prize in Analysis

The Association for Women in Mathematics (AWM) will present the FIRST AWM-SADOSKY RESEARCH PRIZE IN ANALYSIS to **Svitlana Mayboroda**, Associate Professor of Mathematics at the University of Minnesota, at the Joint Mathematics Meetings in Baltimore, MD in January 2014. Established in 2012 the AWM-Sadosky Research Prize recognizes exceptional research in analysis by a woman early in her career. 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. The biennial presentation of this prize serves to highlight to the community outstanding contributions by women in the field of analysis, to advance the careers of the prize recipients, and to evoke the memory of all that Cora Sadosky exemplified as a mathematician, mentor and friend.

The inaugural 2014 AWM-Sadosky Research Prize in Analysis is awarded to Svitlana Mayboroda in recognition of her fundamental contributions to Harmonic Analysis and PDEs. Mayboroda received the equivalent to a Master's degree in Applied Mathematics from Kharkiv National University, Ukraine, before coming to the United States. She received her PhD from the University of Missouri at Columbia under Marius Mitrea's guidance.

Mayboroda's research has centered on boundary value problems for second and higher order elliptic equations in non-smooth media. Elliptic equations in non-smooth media model a variety of physical systems and thus play a central role in science and engineering. Her research addresses fundamental problems aimed at understanding how irregular geometries or internal inhomogeneities of media affect the behavior of the physical system in question. Her talent and imagination which have been praised by world leaders in the field is also evident in her recent work with Vladimir 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. For higher order elliptic operators the situation on non-smooth domains is quite different than in the second order case and much less is known. Mayboroda's contributions have opened up fundamental new paths in this uncharted territory and she has been a major driving force behind it.

A Sloan Research Fellow, Mayboroda has given numerous invited talks both nationally and internationally. Funded by an NSF CAREER grant Mayboroda ran a Workshop for Women in Analysis and PDE in 2012 and plans to run another one in the next couple of years. This workshop is targeted towards women at the early stages of their careers in mathematics. It was designed by Mayboroda to support them through the crucial passage from graduate school to a postdoctoral position or to a faculty position. Statistically this is one of the stages at which a particularly high percentage of women leave academia. The workshop is a focused educational and research program in a chosen area of Analysis and PDE, which brings together outstanding senior female mathematicians and junior researchers. It includes Main Lectures, invited and contributed talks, and panel discussions regarding career development issues.

The 2014 Joint Mathematics Meetings will be held January 15–18 in Baltimore, MD. For further information on the AWM-Sadosky Research Prize, please visit www.awm-math.org.