



ASSOCIATION FOR
WOMEN IN MATHEMATICS

PRESS RELEASE

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June 1, 2017

Lillian Pierce wins the third AWM-Sadosky Research Prize in Analysis

The Association for Women in Mathematics (AWM) will present the third AWM-Sadosky Research Prize in Analysis to **Lillian Pierce**, Assistant Professor of Mathematics, Duke University at the Joint Mathematics Meetings in San Diego, CA in January 2018. 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 is 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 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 2018 AWM Sadosky Research Prize in Analysis is awarded to Lillian Pierce in recognition of her outstanding contributions to harmonic analysis and analytic number theory. Pierce received her PhD degree in 2009 from Princeton University, and has held appointments at the Institute for Advanced Study, Oxford University, and the Hausdorff Center for Mathematics before assuming her current position at Duke University.

Pierce is one of the most talented, original and visionary analysts of her generation. Her research

spans and connects a broad spectrum of problems ranging from character sums in number theory to singular integral operators in Euclidean spaces. She has made far-reaching contributions to the study of discrete



analogs of harmonic-analytic integral operators, taking inspiration in classical Fourier analysis, but drawing also on methods from analytic number theory such as the circle method and Diophantine approximation. In her recent work with Po Lam Yung, hailed as a remarkable breakthrough and a tour de force, she proved a

polynomial Carleson theorem for manifolds, connecting two major directions of research in harmonic analysis and opening up entirely new research programs. Pierce's work on estimating short character sums, on her own and in collaboration with Roger Heath-Brown, has produced the first significant advance in several decades on this central and difficult problem in analytic number theory. Pierce is highly regarded for her broad vision, deep knowledge of several areas of mathematics, and outstanding technical skill. Her leadership and influence in the field are widely acknowledged.

Pierce is the recipient of a Marie Curie Fellowship, an NSF Mathematical Sciences Postdoctoral Research Fellowship, and an NSF CAREER award. She has a visible and active presence in the mathematical community. Her award of the AWM-Sadosky Research Prize is a worthy testament to her excellence.

The 2018 Joint Mathematics Meetings will be held January 10 - 13 in San Diego, CA. For further information on the AWM-Sadosky Research Prize, including the previous winners, please visit www.awm-math.org.