András Vasy was awarded the 2017 Bôcher Memorial Prize at the 123rd Annual Meeting of the AMS in Atlanta, Georgia, in January 2017.

**Citation**

The 2017 Bôcher Memorial Prize is awarded to András Vasy for his fundamental paper “Microlocal analysis of asymptotically hyperbolic and Kerr-de Sitter spaces,” *Inventiones Mathematicae* 194 (2013), 381–513. This paper resolved a thirty-five-year-old conundrum in geometric scattering theory regarding an effective meromorphic continuation of Green functions in these settings. In so doing, it developed a systematic microlocal framework for the Fredholm analysis of nonelliptic problems. This paper was seminal for numerous subsequent works, including two by Vasy in collaboration with P. Hintz: “Semilinear wave equations on asymptotically de Sitter, Kerr-de Sitter, and Minkowski spacetimes,” *Analysis & PDE* 8 (2015), 1807–1890, and the recently posted paper, “The global nonlinear stability of the Kerr-de Sitter family of black holes.” The committee also recognizes Vasy’s outstanding contributions to multibody scattering and to propagation of singularities for solutions to wave equations on regions with singular boundaries.

**Biographical Sketch**

András Vasy was born and grew up in Budapest, Hungary. He attended the Apáczai Csere János Gimnázium (high school) in Budapest and the United World College of the Atlantic in Llantwit Major, Wales, before undergraduate studies at Stanford University in mathematics and physics. He received his PhD in mathematics from the Massachusetts Institute of Technology under the supervision of Richard Melrose in 1997. Subsequently, he held positions at the University of California Berkeley, the Massachusetts Institute of Technology, and Northwestern University before joining Stanford University in 2005, where he is currently professor of mathematics. He received a Sloan Research Fellowship and a Clay Research Fellowship and was a speaker in the partial differential equations section of the 2014 ICM in Seoul.

**Response from András Vasy**

It is a great honor to receive the 2017 Bôcher Memorial Prize. I am very grateful that the prize recognizes the development of microlocal analysis, along with the role I played in it. Microlocal analysis is a powerful unified approach dealing with many problems in analysis, from partial differential equations to integral geometry and inverse problems. It is this unified aspect that appeals to me particularly, and I very much hope that future generations of mathematicians will derive as much joy from working on and with it as I do.

The work leading to this prize could not have happened without the support of many people. My parents, Margit and Géza; my siblings, Benedek and Júlia; as well as my wife, Sara, and my daughter, Marguerite, supported me in this endeavor in a multitude of ways, including forgiving me for spending so much time thinking about mathematics and for creating such a happy environment for my life.

I am also grateful to my teachers throughout the years who led me to the delights of mathematics and physics: my Budapest Apáczai Gimnázium (high school) math and physics teachers, Péter Pósfai and Ferenc Zsigri, and my Stanford undergraduate and MIT graduate instructors, especially Steven Chu, Leon Simon, and Victor Guillemin; it is thanks to Leon’s inspiring lectures that I ended up doing mathematics. I also learned a lot from my collaborators; I am very grateful for all the discussions that undoubtedly played a role in how I approach the area. But most of all I am extremely grateful to my PhD advisor, Richard Melrose. My view of the subject was fundamentally shaped by what I learned from him as a student, a collaborator, and a colleague; I believe that the insights I acquired through interactions with him form the key part of the work that is now being recognized by the AMS.

**About the Prize**

Established in 1923, the prize honors the memory of Maxime Bôcher (1867–1918), who was the Society’s second Colloquium Lecturer in 1896 and who served as AMS president during 1909–1910. Bôcher was also one of the
AMS Prize Announcements

FROM THE AMS SECRETARY

founding editors of Transactions of the AMS. The original endowment was contributed by members of the Society. The prize is awarded for a notable paper in analysis published during the preceding six years. To be eligible, the author should be a member of the AMS or the paper should have been published in a recognized North American journal. The prize is given every three years and carries a cash award of US$5,000.

The Bôcher Prize is awarded by the AMS Council acting on the recommendation of a selection committee. The members of the 2017 prize selection committee are the following individuals:

• Fang Hua Lin (Chair)
• Michael E. Taylor
• Ruth J. Williams

The complete list of recipients of the Bôcher Prize follows:

1923 G. D. Birkhoff
1924 E. T. Bell, Solomon Lefschetz
1928 J. W. Alexander
1933 Marston Morse, Norbert Wiener
1938 John von Neumann
1943 Jesse Douglas
1948 A. C. Schaeffer, D. C. Spencer
1953 Norman Levinson
1959 Louis Nirenberg
1964 Paul J. Cohen
1969 I. M. Singer
1974 Donald S. Ornstein
1979 Alberto P. Calderón
1984 Luis A. Caffarelli, Richard B. Melrose
1989 Richard M. Schoen
1994 Leon Simon
1999 Demetrios Christodoulou, Sergiu Klainerman, Thomas Wolff
2002 Daniel Tataru, Terence Tao, Fanghua Lin
2005 Frank Merle
2008 Charles Fefferman, Carlos Kenig, Alberto Bressan
2011 Assaf Naor, Gunther Uhlmann
2014 Simon Brendle
2017 András Vasy

Photo Credit
Photo of András Vasy is courtesy of András Vasy.