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The IceCube MasterClass: providing high school students an authentic research experience SILVIA BRAVO GALLART, ELLEN BECHTOL, DAVID SCHULTZ, MEGAN MADSEN, JEAN DEMERIT, WIPAC. University of Wisconsin, Madison, THE ICECUBE COLLABORATION — In May 2014, the first one-day long IceCube Masterclass for high school students was offered. The program was inspired by the masterclasses started in 2005 by the International Particle Physics Outreach Group and supported in the U.S. by QuarkNet. Participation in the IceCube masterclasses has grown each year, with a total of over 500 students in three U.S. states and three European countries after three editions. In a masterclass, students join an IceCube research team to learn about astrophysics and replicate the results of a published paper, such as the discovery of astrophysical neutrinos or a measurement of the cosmic ray flux. We will discuss both the scientific and educational goals of the program as well as the organizational challenges. Data from the program evaluation will be used to support the need of educational activities based on actual research as a powerful approach for motivating more students to pursue STEM college programs, making science and scientists more approachable to teenagers, and helping students envision a career in science.

Silvia Bravo Gallart
WIPAC. University of Wisconsin, Madison

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