

COLLOQUIUM

A Century of Noether's Theorem

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Fermilab

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4:00 p.m. - Wilson Hall, One West

In the summer of 1918, Emmy Noether published the theorem that now bears her name, establishing a profound connection between symmetries and conservation laws. The influence of this insight is pervasive in physics; it underlies all of our theories of the fundamental interactions and gives meaning to conservation laws beyond useful empirical rules. Noether's papers, lectures, and personal interactions with students and colleagues drove the development of abstract algebra, establishing her in the pantheon of twentieth-century mathematicians. The talk will trace her path from Erlangen through Göttingen to a brief but happy exile at Bryn Mawr College in Pennsylvania, illustrating the importance of The Theorem for the way we think today.