

BI-CO MATHEMATICS COLLOQUIUM

Karen Taylor

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and Bryn Mawr College

“Arithmetic and Modular Forms”

Monday, March 5, 2018

Talk at 4:00 – Park 338

Tea at 3:30 – Park 339, Math/Physics Lounge

Abstract:

“There are five elementary arithmetical operations: addition, subtraction, multiplication, division, and modular forms.”

Martin Eichler

In this talk we will introduce modular forms and give a few classical examples of their arithmetical connections. We, then, focus on a problem, arising from the work of Andrews, Dyson, and Hickerson (ADH), on connecting the arithmetic of $\mathbb{Z}[\sqrt{6}]$ to modularity. Generalizing this problem is joint work, in progress, with Larry Rolen.

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