

STEM Education

2017 - 2018 Seminar Series

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Dr. Megan Wawro

*Associate Professor of
Mathematics at Virginia Tech*

Friday, March 30th

11 a.m. - 12 p.m.

Location:

Sloane Physics Lab (Room 56)

217 Prospect Street

New Haven, CT 06511

Student Reasoning about Linear Algebra in Quantum Physics:

In this talk Dr. Wawro will discuss (i) students' meta-representational competence as demonstrated during semi-structured individual interviews, with particular attention to the students' critique of the adequacy of matrix and Dirac notation and their suitability for various tasks (diSessa, 2004); and (ii) the conceptually challenging notion of linear combination of eigenvectors and effective ways for developing a conceptual understanding of eigenspace. Dr. Wawro will share data from her LinAI-P (NSF CAREER 1452889) project which focuses on students' understanding, symbolization, and interpretation of eigentheory as well as related ideas from linear algebra in quantum mechanics. The goal of this project is to contribute to the NRC's (2012) DBER Report call for research that investigates students' understanding of cross cutting concepts in undergraduate STEM courses, in order to better understand the coherence in students' learning experience across STEM disciplines.

Please join a lunch discussion immediately following this seminar.

For more information,
please contact Helmsley
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