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***Revolutionary Mathematics:
Liberating Ideas from History for Today's Teachers and Students***

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Talk Abstract

As a human activity, mathematics is inevitably shaped by the social, cultural, religious and political contexts in which its practitioners reside. In this talk, we explore this close relationship through examples of interesting mathematical people and ideas connected with two important revolutions that began in the latter half of eighteenth-century, in France and Britain respectively. Along the way, we will consider some specific (and perhaps revolutionary!) teaching strategies for liberating tales such as these from their historical setting, and bringing them into today's mathematics classrooms.

Speaker Biography

Janet Heine Barnett holds a Ph. D. in set theory from CU Boulder, and has taught mathematics at CSU-Pueblo since 1990. A 1995-1996 fellow at the Mathematical Association of America's *Institute for History of Mathematics and Its Use in Teaching* (funded by the NSF), her scholarly interests have long included the history of mathematics and its use in promoting both student mathematical understanding and teacher reflection on pedagogical issues. She integrates history into her own teaching practice in a variety of ways, and is nationally and internationally known in particular for her work with primary historical sources in the undergraduate mathematics classroom. As part of that work, she currently serves as one of seven PIs on the national NSF-funded project *TRansforming Instruction in Undergraduate Mathematics via Primary Historical Sources (TRIUMPHS)*. Throughout her tenure at CSU-Pueblo, Professor Barnett has also sought to improve the quality of mathematics education in the Pueblo region by recruiting, training and mentoring K-12 teachers of mathematics. In addition to several local and regional awards for excellence in teaching and scholarship, she received the national *Haimo Award for Distinguished Undergraduate Teaching* from the Mathematical Association of America in 2017. A native of Pueblo, Janet shares her passions for mathematics and history, as well as dance and yoga, with her husband and traveling companion George W. Heine III, whom she met when they were both teaching mathematics as Peace Corps volunteers in the Central African Republic (1982-1984).