Ohio MAA Summer Short Course June 25 – 27, 2024 1:00 – 3:00

## Euler in Twelve Theorems (and Three Corollaries)

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In the course of six hours, spread across three days, I'll sample from the vast mathematical output of Leonhard Euler (1707 - 1783). Among the topics will be:

- The Basel problem (1734)
- The birth of analytic number theory (1737)
- Euler's first partition theorem (1740)
- Euler's identity (1748)
- Amicable numbers (1750)

The lectures require a familiarity with basic algebra, Euclidean geometry, trigonometry, and calculus – the only topics known to mathematicians in the early 18<sup>th</sup> century. From such modest pre-requisites, Euler pushed the frontier of our discipline in multiple, wonderful directions.

Laplace is said to have called Euler "The Master of Us All." Our course should indicate why such a characterization is apt.

**William Dunham** is a historian of mathematics who has written four books on the subject: Journey Through Genius, The Mathematical Universe, Euler: The Master of Us All, and The Calculus Gallery. He was the MAA's George Pólya Lecturer from 2014 to 2016 and is featured in the Teaching Company's DVD course "Great Thinkers, Great Theorems." Most recently, he co-edited an anthology from Cambridge University Press titled The G. H. Hardy Reader. Since Dunham retired from Muhlenberg College (*emeritus*, 2014), he has held visiting positions at Harvard, Princeton, Penn, Cornell, and at Bryn Mawr College, where he now is a Research Associate in Mathematics.

You can register at <u>https://form.jotform.com/240898595420164</u>. The cost for early registration is \$75.00 and ends on June 11. After June 11, the cost for registration is \$100. If you have any questions, please contact Jim Anderson at <u>jim.anderson@utoledo.edu</u>.