

MATH ENCOUNTERS



EXPLOSIVE *data:* *the MATH of measuring FIERY HOT and LIGHTNING FAST detonations*

Speaker: Aaron Luttmann

Wednesday, December 6, 2023

Special introduction by **Tim Chartier**,
Professor of Mathematics, Davidson
College, and MoMath 2022-2023
Distinguished Visiting Professor for the
Public Dissemination of Mathematics.

Afternoon Presentation

4:00 pm ET (New York)

Evening Presentation

7:00 pm ET (New York)

National Museum of Mathematics

11 E. 26th Street
(between 5th and Madison)

Explosions are extreme environments, where the temperatures can get so hot that a thermometer would instantly melt and the debris would blast so fast that few cameras would even see it. To understand the science of explosions, however, temperature and particle velocity are essential information, so we have to come up with clever, indirect ways to measure these quantities. In this interactive discussion, we will explore how mathematical modeling allows us to design systems for measuring temperature, from the cold outside to the heat of your oven to the extreme temperatures in an explosion, and for measuring speed, from the radar gun that catches your car speeding up to advanced laser systems for measuring the speed of blast debris. Join Aaron Luttmann, Senior Technical Advisor at Pacific Northwest National Laboratory, for an explosively engaging evening of math and modeling.

Register now at mathencounters.org to reserve your place!

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the spectacular world of mathematics*

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