

AMS Short Course

3D PRINTING

Challenges and Applications

January 3–4, 2022

in conjunction with the Joint Mathematics Meetings in Seattle

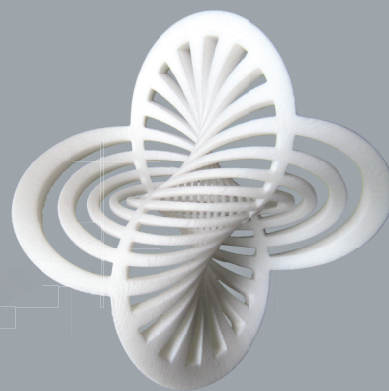


Image: Hopf Fibration by Henry Segerman

Organized by:

Maria Trnkova, *University of California, Davis*, and Andrew Yarmola, *Princeton University*

Speakers include **Silviana Amethyst**, *University of Wisconsin-Eau Claire*; **David Bachman**, *Pitzer College*; **Gabriel Dorfsman-Hopkins**, *University of California, Berkeley*; **Elisabetta Matsumoto**, *Georgia Institute of Technology*; **Henry Segerman**, *Oklahoma State University*; and **Bethany Weeks**, *Boeing Additive Manufacturing*.

Access to 3D printing facilities is quickly becoming ubiquitous across college campuses. However, while equipment training is readily available, the process of taking a mathematical idea and making it into a printable model presents a big hurdle for most mathematicians. Centered around the idea of additive manufacturing, as opposed to subtractive manufacturing, 3D printing allows for fast prototyping and design, rich interplay between materials, and very complex internal structure, opening up many new avenues in engineering, chemistry, and applied physics.

This short course will focus on the role of 3D printing in mathematical art, education, and visualization of objects from geometry, topology, combinatorics, dynamical systems, and algebra, together with a thorough discussion of the challenges and open questions in current approaches to the technology.

The American Mathematical Society's Short Courses introduce mathematicians and students to emergent areas of applied mathematics to fuel curiosity, discovery, and research. Led by experts, activities in each course address theoretical issues, numerical challenges, and practical applications.



Learn more and register:

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