



**Chesapeake Section of the
American Association of Physics Teachers
Fall 2021 Virtual Meeting**

Contribution ID: 22

Type: **Talk**

Fun with Fourier Transforms, or, How I Learned to Stop Worrying and Love Convolutions

Saturday, October 23, 2021 1:30 PM (15 minutes)

I will describe a few amazing applications of Fourier transforms and convolutions in the context of sound synthesis, astronomy and LIGO gravitational wave detection. The aim of this talk is to present some topics to motivate the power of transformations that can be introduced to students at a very early level, even before calculus or their first exposure to the formal Fourier transform. This can be useful in training students to conduct research as well as in the classroom.

Primary author: FISHER, Ryan (Christopher Newport University)

Presenter: FISHER, Ryan (Christopher Newport University)

Session Classification: Afternoon Session 1