

# Scalable Photonics and Metamaterials

Flexible Electronics and Photovoltaics (FEP)

Vivian Ferry, Coordinator

**Wednesday, May 29**

8:30-11:40 AM | Keller Hall, Room 3-115

Photonic structures and optical metamaterials have enormous commercial potential for their ability to guide, capture, and manipulate the electromagnetic spectrum in unexpected ways, including in energy, aerospace and defense, displays, and health care. The unique properties of these nanoscale and mesoscale materials are enabled by the geometry and relative arrangement of the nanostructures. This workshop will consider the materials used to fabricate these photonic structures, the design of nanostructures, the implementation and incorporation of these structures into a wide array of innovative applications, as well as methods for scalable fabrication and production.

<b>8:30 AM</b>	Welcome	Prof. Vivian Ferry, UMN
<b>8:35 AM</b>	An engineered materials revolution in aerospace	Dr. Luke Sweatlock, Northrop Grumman Aerospace Systems
<b>9:10 AM</b>	Scalable fabrication of the nanoscale for metamaterials and photodetectors	Dr. Anna Hiszpanski, Lawrence Livermore National Laboratory
<b>9:45 AM</b>	<b>Break</b>	
<b>10:15 AM</b>	Design and fabrication of optical and nano-structured metamaterials on flexible substrates for large scale and high volume applications	Dr. Ragip Pala, Metamaterial Technologies Inc
<b>10:50 AM</b>	Photonic thin films applied to energy efficiency	Tim Hebrink, 3M
<b>11:25 AM</b>	Adjourn for Lunch	