

# Plasma Physics Seminar

Location: BaPSF Auditorium (Rehab Building Room 15-70)

Monday June 17, 2019

2:00PM

## Microfabricated devices for vacuum and gas phase environments

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An enduring challenge for microsystems technology has been the miniaturization of gas pumps. The first part of this talk will describe micropumps that exploit thermally driven non-viscous flow in microchannels. Being motionless, these pumps offer extraordinary reliability and can be used with micro-gas chromatographs for detecting volatile organic pollutants such as benzene, toluene, and xylene. The second part of this talk will present some of our work on miniaturized devices for vacuum environments, including a 3D-printed magnetron.

This research is performed in the context of the University of Michigan Center for Wireless Integrated MicroSensing and Systems (WIMS2). The Center brings together research in multiple specialties to facilitate microsystems for healthcare and environmental monitoring.