ABSTRACT
Vacuum electronic microwave sources continue to form the heart of many of the technologies we rely upon every day despite predating their solid state cousins by more than half a century. The earliest microwave sources grew out of vacuum electronic technologies. This talk begins with a survey of early microwave tube development and the applications which drove source innovation. A very brief overview of vacuum electronic based microwave generation is given, followed by a discussion of some of the constraints on tube design. The talk concludes with a survey of current and future uses for vacuum electronic microwave sources.

The goal of this seminar is to learn about vacuum electronic based microwave generation as well as a history of vacuum electronic microwave sources from the earliest microwave tube development through current and future uses for vacuum electronic microwave sources.

Speaker Bio
Dr. Matt Domonkos is a leading expert in the areas of high energy density plasmas, pulsed power, and microwave systems. He has lead research at the NASA John H. Glenn Research Center as well as the Ohio Aerospace Institute, and is currently the Principal Physicist in the Air Force Research Lab, Directed Energy Directorate. Dr. Domonkos earned his PhD in Aerospace Engineering from the University of Michigan in 1999.