Colin Gurganus

Graduate Institution: Michigan Technological University

Location: Houghton, Michigan

Graduate Discipline: Atmospheric Physics

Hometown: Ypsilanti, Michigan

Research Interests:

I am currently working in the field of cloud microphysics. My research project focuses on the phase transitions of supercooled stratospheric water droplets. The overall aim is to better understand the heterogeneous nucleation mechanisms that provide stable, long lived particles and energy (via latent heat release) that govern and sustain internal cloud processes.

Over the past year I have also become involved with attempts to measure (in situ) internal cloud turbulent mixing. This has led me become interested in holographic imaging, utilizing fiber optics and high speed photography.

About me:

I am an Illinoisan by birth, but have been raised (and educated) a Michigander. I completed my undergraduate degree in Engineering Physics from Eastern Michigan University before coming to Michigan Tech in 2008. In the last two years I have completed my coursework for a Masters degree in Physics, as well as the majority of the requirements for a Ph.D. in Atmospheric Science. During that time I was the lead TA for the Physics department's upper division teaching labs, and have been working out the bugs in my research equipment.

My undergraduate research experience was limited to an REU at the Air Force Research Lab (polymer Branch) at Wright Patterson AFB, where I worked with thin film photovoltaic devices. While at EMU I was inducted to Sigma Pi Sigma and SPS, and remain active in both organizations at MTU. Additionally I retain active membership in APS, AAPT and OSA, though regrettably the remote nature of my current institution prevents me from traveling to many conferences.

In addition to my passion for Atmospheric Physics, I am also fascinated by high energy particle physics research, notably the Pierre Auger Observatory. I also have a great love of history, especially the Hellenic-Roman and post Napoleonic eras. Outside of academia, I enjoy cycling, soccer, volleyball, broomball and travel.