

Meet the NEW FACULTY

UB Geology Welcomes Dr. Beáta Csathó



Dr. Beáta Csathó, who joined the department this August as an Assistant Professor, is a geophysicist, specializing in remote sensing. Dr. Csathó has received her PhD in Geophysics from the University of Miskolc, Hungary in 1993. She started her career as a research scientist of the Eötvös Loránd Geophysical Institute of Hungary (1981-1992), where she developed and applied potential field and electromagnetic methods for mineral exploration and for environmental geophysics. In 1993 she received a Fulbright scholarship for studying geological remote sensing at the USGS in Flagstaff, AZ. Prior to coming to UB she was a research scientist at the Byrd Polar Research Center, The Ohio State University, Columbus, Ohio (1994-2006).

Her research focuses on understanding the complex dynamics of the Earth's system and its interaction with the human environment. Pursuing this goal she frequently works in a multi-disciplinary setting to integrate information across all of the geosciences, including the solid earth, atmosphere, cryosphere and oceans. To process, merge and analyze data sets from multiple sources Dr. Csathó adopts methodologies from geophysics, remote sensing, photogrammetry, geodesy, spatial statistics, GIS, visualization, digital image processing, pattern recognition, and data fusion. Her funded research includes the investigation of glacier and ice sheet mass balance and subglacial geology, application of remote sensing for mapping periglacial and glacial geomorphology, satellite laser altimetry and the development of data fusion approaches. She participated in several expeditions in Greenland and Antarctica for studying the mass balance and dynamics of polar ice sheets and acquiring ground-truth for satellite and airborne measurements.

Dr. Csathó has authored or coauthored 30 publications in peer-reviewed journals. She organized two international meetings and served as a member of numerous national and international steering committees. Currently she is one of the US representatives on the Scientific Committee of Antarctic Research Geosciences Standing Committee and the chair of a working group on Polar and Alpine Research, International Society of Photogrammetry and Remote Sensing. She has been teaching and advising students and participated in curriculum development both at The Ohio State University and internationally.

In her current research projects she uses satellite laser altimetry and satellite imagery as well as historical photographs in Greenland and Antarctica to evaluate whether the ongoing dramatic changes in ice sheet surface elevation, ice velocity, grounding line and calving front positions are climatically significant. A 3-year project, entitled "Long-term mass balance of the Pacific Ocean sector of Antarctica based on multisensor fusion," has recently been selected for funding by NASA's Polar Program. Moreover, she has been elected to serve as a science team member of NASA's Ice, Cloud and land Elevation Satellite mission.

Join us in welcoming Dr. Csathó to UB Geology!