

MGs Luncheon Meeting
Wednesday September 12th, 2018
12:00 PM at the Billings Petroleum Club

Save the Date!

RSVP – montanageologicalsociety@gmail.com

ALLEN GLAZNER

MINERALOGICAL SOCIETY OF AMERICA DISTINGUISHED LECTURER



Granite and Ice Cream: “Metamorphism” and Crystal Growth at (Relatively) Low Temperatures

Large crystals are an essential and distinguishing feature of granites. We were all taught that granites are just slowly cooled igneous rocks, but the situation is far more complicated and interesting than that. Several lines of evidence are converging on the notion that granitic rocks are wildly recrystallized; that crystal equilibria reflect temperatures well below the nominal point at which magmas freeze; that apparently undeformed plutons can hide (by recrystallization) massive amounts of deformation, and that granites are really metamorphic (and igneous) rocks. The materials science governing behavior of crystals in plutons is similar to the materials science of food—especially ice cream.

Biography

Allen Glazner is the Kenan Distinguished Professor of Geological Sciences at the University of North Carolina at Chapel Hill. He received his B.A. from Pomona College and Ph.D. from UCLA. His research focuses on magmatism and tectonics of western North America, plutons and their evolution, and crystal growth in magmatic systems, and for the past 15 years he has been dealing with the fact that granites are not what we were told as kids. He has published over 100 refereed papers on various aspects of petrology and tectonics and has coauthored three *Geology Underfoot* books on California topics: Southern California, Death Valley and Owens Valley, and Yosemite National Park.