Bio: Prof. Duncan's research is in differential geometry, with an emphasis in
gauge theory. He received his PhD from Rutgers in 2013. He held
postdoctoral positions at Michigan State University, and McMaster
University (where he overlapped with Cleveland State's Dr. Fred Galetto).
He is now an Assistant Professor at James Madison University.

Abstract: Several years ago, a friend of mine, Ben Schmidt, came across an
interesting math puzzle in an old Russian puzzle book. The puzzle involves
three princesses and three bears, with the bears allowed to move according
to certain rules. Upon investigating these rules, we discovered unexpectedly
rich mathematical structures making connections with dynamics,
mathematical biology, and even quantum mechanics! In this talk, I will
describe the puzzle, its solution, and some of the math that has come out of
our study.