

BI-CO MATHEMATICS COLLOQUIUM

Kyu-Hwan Lee
University of Connecticut

"Fully Commutative Elements of the Symmetric Group"

Monday, March 21, 2016

Talk at 4:00 – H109

Tea at 3:30 – KINSC Math Lounge, H208

Abstract:

The fully commutative elements of the symmetric group is related to the following question:

There are n penguins, $n > 2$. They are all different heights. How many ways are there to order the penguins in a line, left to right, so that we cannot find any three that are arranged tallest to shortest (in left to right order)? The penguin triples do not have to be adjacent.

In this talk, we will answer this question using (new) combinatorics of Dyck paths. If time permits, we will consider a generalization of this problem to the Coxeter group of type D . This is a joint work with Gabe Feinberg.

HAVERFORD COLLEGE