

COLLOQUIUM
UNIVERSITY OF PITTSBURGH
TUESDAY, JANUARY 19, 2016

704 THACKERAY HALL
3:00 P.M.

ARMIN SCHIKORRA

MATHEMATISCHES INSTITUT
UNIVERSITÄT BASEL

NONLOCAL ASPECTS IN GEOMETRIC ANALYSIS

ABSTRACT: A classical problem in the geometric calculus of variations is the problem of finding particularly nice representatives within a class of geometric objects. These representatives are usually achieved by finding critical points of an energy functional acting on these objects.

Quite surprisingly, even in very classical situations these questions are intrinsically related to fractional order energies and fractional objects.

We will have a look at knot energies, which are related to fractional versions of geodesics in the 2-sphere. Then we will have a look at how this relation helps us to answer questions about knot energies.

Refreshments served at 2:30 p.m.
in the Math Dept. COMMON ROOM, Thackeray 705

*The speaker is a candidate for a position in the Department.