BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

DISCRETE HODGE STAR OPERATOR FOR TRIANGULATED MANIFOLDS

Dohyeong Kim
Department of Mathematics
MIT

September 19, 2018, 4:00 – 5:00pm
Math/Computer Science, Room 148
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

Abstract: We pursue the analogy between the de Rham complex of a Riemannian manifold and the simplicial cochain complex of a triangulated manifold, focusing on the Hodge star operator. There is a discrete analogue of the Hodge star operator which we claim to be a topological invariant of the underlying manifold when the dimension is three. The existence of such an operator is a part of the conjecture by Prasanna and Venkatesh, when the 3-manifold in consideration has an arithmetic origin.

See `http://math.bu.edu/research/geom/seminar.html` or contact Yoosik Kim *yoosik@bu.edu* or Siu-Cheong Lau *lau@bu.edu* for more information.