BOSTON UNIVERSITY SPECIAL GEOMETRY SEMINAR

COUNTING HOLOMORPHIC DISCS AND ITS APPLICATIONS

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January 18, 2018, 4:00 – 5:00pm
Math/Computer Science, Room B21
111 Cummington Street, Boston

Tea: 3:30pm in Room B21

Abstract: The study of holomorphic discs plays an important role in symplectic geometry starting from Gromov. The first invariant one directly associates with holomorphic discs is the counting. The computation of the counting is the central problem in enumerative geometry. I will introduce a method reducing the enumerative problems of holomorphic discs in hyperKähler manifolds into weighted counts of certain graphs in tropical geometry, which have combinatorial nature. Furthermore, I will explain its applications in various geometric problems: including intrinsic mirror symmetry, the open Gopakumar-Vafa conjecture, tropical geometry and algebraic gluing of minimal surfaces.

Contact: Takashi Kimura (*kimura@math.bu.edu*) for more information.