

BOSTON UNIVERSITY GEOMETRY SEMINAR

MULTIPLE AVATARS OF THE OPERAD GER

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Math/Computer Science, Room B21
111 Cummington Street, Boston

Tea: 2:45pm in Room 144

Abstract: Gerstenhaber algebras and their relatives pop up in questions of algebraic topology, deformation theory, theory of motives, and in questions related to the renormalization procedure of quantum field theory. In my talk I will remind the operad GER which governs Gerstenhaber algebras. Then I will describe several differential graded (dg) operads which are weakly equivalent to GER. These dg operads are very dissimilar and each of them is related to a separate very interesting subject. Among these subjects we have Kontsevich's graph complex, Deligne conjecture on Hochschild complex, compactification of configuration spaces and braid groups. I will try to say a few words about each subject as we will encounter each of these dg operads. Using the language of fairy tails, the operad GER can be compared to the Wonderful Wizard of Oz from Frank Baum's famous book, while the above dg operads can be compared to his different avatars, which appeared in front of Dorothy and her friends.

See <http://math.bu.edu/research/geom/seminar.html> or contact Takashi Kimura kimura@math.bu.edu for more information.