Laplacian coflow of G2-structures on 7-manifolds

Julieth Paola Saavedra Ramirez

Abstract

Flows of G2-structures have been used as tools in the study of G2-geometry. The talk will focus on some principal results of the Laplacian coflow. We will give some general preliminaries on Contact Calabi-Yau 7-manifolds which was used in the Laplacian coflow with the initial coclosed G2-structure given by Habib and Vezzoni finding a singularity and show that the metric and the volume collapse at this singularity. Finally, the Almost abelian Lie group also was studied for the Laplacian coflow, finding that the solution converges to G2-structure torsion free.