

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

**THE TYPE IIA FLOW AND ITS  
APPLICATIONS IN SYMPLECTIC  
GEOMETRY**

Teng Fei  
Rutgers University, Newark

Sep 29, 2021, **4-5pm** MCS B31

Tea: 3:45pm in Room B24

**Abstract:** The equations of flux compactifications of Type IIA superstrings were written down by Tomasiello and Tseng-Yau. To study these equations, we introduce a natural geometric flow on symplectic Calabi-Yau 6-manifolds. We prove the well-posedness of this flow and establish the basic estimates. We show that the Type IIA flow can be applied to find optimal almost complex structures on certain symplectic manifolds. It can also be used to prove a stability result about Kahler structures. This is based on joint work with Phong, Picard and Zhang.

See <http://math.bu.edu/research/geom/seminar.html> or contact Yu-Shen Lin ([yslin@bu.edu](mailto:yslin@bu.edu)) or Siu-Cheong Lau ([lau@math.bu.edu](mailto:lau@math.bu.edu)) for more information.