



THE UNIVERSITY
of NORTH CAROLINA
at CHAPEL HILL

Online Undergraduate Analysis and PDE Seminar

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1:30 - 2:30 p.m.

Zoom

Complete Calabi-Yau metrics from smoothing Calabi-Yau complete intersections

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Abstract. We extend the work of Székelyhidi (2019) to construct complete Calabi-Yau metrics on non-compact manifolds which are smoothings of an initial complete intersection Calabi-Yau cone V_0 . The constructed Calabi-Yau manifold has tangent cone at infinity given by $C \times V_0$. This construction produces Calabi-Yau structures on new topological spaces which are not C^* -equivariant and admit fibers having different complex structures including singularities.