

BOSTON UNIVERSITY GEOMETRY AND PHYSICS SEMINAR

## HIGHER HASSE-WITT MATRICES AND PERIOD INTEGRALS

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March 14, 2018, 4:00 – 5:00pm  
Math/Computer Science, Room 148  
111 Cummington Street, Boston

Tea: 3:45pm in Room 144

**Abstract:** I shall explain a program to relate the arithmetic of Calabi-Yau hypersurfaces in toric varieties or flag varieties, to their period integrals at the large complex structure limit. In particular, we prove a recent conjecture of Vlasenko regarding higher Hasse-Witt matrices. This work follows Katz's description of Frobenius action in terms of local expansions. It is joint work with Huang, Lian and Yau.

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