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# **Conference on Tropical Geometry and Mirror Symmetry**

## **Prof. Masahito Yamazaki**

### **Amoeba, coamoeba and non-commutative Donaldson-Thomas invariants**

#### **Abstract:**

I this talk I will discuss non-commutative Donaldson-Thomas invariants for a class of toric Calabi-Yau manifolds. The generating function of these invariants is computed by a crystal melting model, which is determined by the “tropical limit” of the coamoeba of the Newton polynomial of the toric diagram. In the thermodynamic limit, the limit shape of the crystal gives amoeba of the mirror Calabi-Yau manifold. If time allows, I will also discuss the wall crossing of Donaldson-Thomas invariants.

Talk time runs to 10:30 AM.

## **Sunday, February 14, 2010**

### **9:30 AM**

### **AP&M 6402**

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