

# The ice cone family and iterated integrals for Calabi-Yau varieties

*Tuesday, February 14, 2023 10:00 AM (30 minutes)*

In this talk I will explain how one can compute ice cone integrals in two dimensions for arbitrary loop order and which mathematical structures show up in this procedure. Using a leading singularity analysis we can find two copies of the banana graph which are related to period integrals on Calabi-Yau varieties. This observation allows us to express also the ice cone through iterated Calabi-Yau period integrals. Furthermore, I will explain how the usage of the canonical variable  $q$  can help to understand these iterated integrals better.

**Presenter:** NEGA, Christoph

**Session Classification:** Session III