

## Nekrasov's gauge origami via DT4 theory

*Monday, March 3, 2025 4:00 PM (1 hour)*

The study of the classical instantons on the spacetime has led to many interesting mathematics through the associated partition functions. In a series of papers, Nekrasov introduced and studied the generalised ADHM equations, whose solutions are instantons on the “origami spacetime”. In this talk, I will explain how to interpret Nekrasov's gauge origami via DT4 theory. Our main result determines the orientation in the Oh-Thomas localisation formula of the gauge origami partition function. After giving some applications, I will finish by presenting a conjectural sheaf-theoretic description of the gauge origami. This is joint work in progress with N. Arbesfeld and M. Kool.

**Presenter:** LIM, Woonam (Yonsei University)