



Contribution ID: 11

Type: **Talk**

## Recent progress of Lefschetz-thimble path integral and refine complex Langevin method

*Tuesday 2 August 2016 11:05 (45 minutes)*

If the classical action takes complex values, the path integral formulation of quantum field theories suffers from the sign problem, and some artifice becomes necessary in order to study their nonperturbative properties. The idea to complexify field variables is a candidate for such tricks, and there are two methods belonging into this category: Lefschetz-thimble path integral and complex Langevin method. In this talk, I will review recent progress of Lefschetz-thimble path integral with its brief introduction, and try to reconsider about complex Langevin method from this point of view.

**Author:** Dr TANIZAKI, Yuya (RIKEN BNL Research Center)

**Presenter:** Dr TANIZAKI, Yuya (RIKEN BNL Research Center)

**Session Classification:** Tuesday AM

**Track Classification:** Quantum Field Theories of dense, cold matter