Speaker: Alain Connes

Title: The semi-local adele class space and Weil positivity

## **Abstract:**

I will explain the results of two recent papers in collaboration with Katia Consani: First on a strong inequality showing that for the single archimedean place the Weil local contribution is larger than the trace of the scaling action on the Sonin space. Second showing that the products of ratios of local factors are quasi-inner functions (a notion that extends the usual notion of inner functions) and this gives the analytic prerequisites to treat the Weil positivity in the semi-local case using the Hilbert space framework associated to a finite set of places in my selecta paper of 1998.