**Speaker**: Shantanu Agarwal

**Title**: A converse theorem without root numbers

**Abstract**: Broadly, a converse theorem characterizes automorphic forms in terms of analytic properties of associated L-functions. Converse theorems have historically played a key role in proving cases of modularity, and also to establish various instances of Langlands functoriality. Weil proved a converse theorem for modular forms for congruence subgroups of SL(2, Z). In his work, he requires functional equations for L-functions twisted by a family of Dirichlet characters. In Weil's hypothesis, these functional equations must have precise values for the so called root numbers. A recent work of Booker relaxes this condition by allowing arbitrary root numbers in the functional equations. We extend Booker's result by proving an analogous theorem for a rational function field.