

Alexander Strohmaier Hahn-Holomorphic functions and their applications

TIME:

17 Jul 2013, 16:15 - 16:45

LOCATION:

Campus "Am Neuen Palais" Haus 8, Raum 0.53

I will consider a class of functions that have convergent expansions near zero possibly containing terms of the form log(z) as well as non-rational powers of z. These functions have very similar properties as analytic functions. In particular I will show that a meromorphic Fredholm theorem holds in this context.

I will demonstrate that this is a powerful tool to study scattering theory in even dimensions. After a short introduction into some elementary constructions in scattering theory and I will show that results such as non-accumulation of resonances near zero are straightforward consequences of our Fredholm theorem.