## Continued fraction expansions and generalized indefinite strings

**09.05** **Jonathan Eckhardt**
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**Time:** Thursday 25.07., 10:30 - 11:00, Room HS 4

**Abstract:** Stieltjes continued fraction expansions play a decisive role in the solution of the inverse spectral problem for Krein strings. Certain continued fractions of a modified form correspond in the same way to generalized indefinite strings. I will discuss under which conditions Herglotz-Nevanlinna functions allow such an expansion and use this to solve the inverse spectral problem for generalized indefinite strings with coefficients supported on a discrete set. These results are related to the Hamburger moment problem as well as multi-soliton solutions of particular integrable wave equations.