

Seminar of the Work Group  
Nonlinear Partial Differential Equations  
SS 23

**July 11th, 2023, 14:00 - 14:45**  
**Seminar room: SR 3.068**

## Complete Non-selfadjointness for Schroedinger Operators on the Semi-axis

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### **Abstract**

In this talk we investigate complete non-selfadjointness for all maximally dissipative extensions of a Schrödinger operator on a half-line with dissipative bounded potential. We show that all proper maximally dissipative extensions (that preserve the differential expression) are completely non-selfadjoint. However, it is possible for non-proper maximally dissipative extensions to have a one-dimensional reducing subspace on which the operator is selfadjoint. We give a characterisation of these extensions and the corresponding subspaces and present a specific example. This is joint work with Christoph Fischbacher and Sergey Naboko