Self-adjoint extensions of symmetric operators

Simon Wozny

PROSEMINAR LINEAR ALGEBRA
UNIVERSITY OF KONSTANZ

Abstract

In this proseminar we will first look at some basics about un-bounded operators. Those will be used to give the definition of self-adjoint operators and the self-adjoint extension of an operator. Furthermore, a brief introduction to the basics of quantum mechanics will give some motivations to derive criteria for self-adjointness and for the existence of self-adjoint extensions of symmetric operators.