Talk: Seminormal Operators

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Start Mo 11 May 2020 2.30pm via Zoom:
`https://tuwien.zoom.us/j/95714000580?pwd=a0QvZ2t1RlpnaWsyRzNxaGo4OFcyUT09`

Abstract

For a bounded linear operator S on a Hilbert space that does not commute with its adjoint, the value of the selfcommutator $D = S^*S - SS^*$ can be observed for further investigation. Operators S with the property that D is semidefinite, are called *seminormal*. Among others the vector-valued unilateral shift will serve as an example. Analogously to normal operators, known from functional analysis, we will derive some basic statements for the spectral radius and numerical range. Seminormal operators became interesting when looking at spectral mapping results, especially the fact that the two-dimensional Lebesgue measure of the spectrum is positive. This is the consequence of Putnam's theorem.