On Stabilization for linear control systems in Banach spaces
C. Seifert[1]

We study abstract suffcient criteria for open-loop stabilizability of linear control systems in a Banach space with a bounded control operator, which build up and generalize a suffcient condition for null-controllability in Banach spaces given by an uncertainty principle and a dissipation estimate. For stabilizability these estimates are only needed for a single spectral parameter and, in particular, their constants do not depend on the growth rate w.r.t. this parameter. Our result unifies and generalizes earlier results obtained in the context of Hilbert spaces. The talk is baed on joint work with Michela Egidi, Dennis Gallaun and Martin Tautenhahn [1].

References

[1] M. Egidi, D. Gallaun, C. Seifert, M. Tautanhahn. *Suffcient criteria for stabilization properties in Banach spaces.* // arXiv:2108.09028 (2021).

---

[1] Hamburg University of Technology, Institute of Mathematics, Germany, Hamburg. Email: christian.seifert@tuhh.de