

T. Ransford and M. Roginskaya, **Point spectra of partially power-bounded operators**, *J. Funct. Anal.*, 230 (2006), 432–445.

Abstract

Let T be an operator on a separable Banach space, and denote by $\sigma_p(T)$ its point spectrum. We answer a question left open in [5] by showing that it is possible that $\sigma_p(T) \cap \mathbf{T}$ be uncountable, yet $\|T^n\| \not\rightarrow \infty$. We further investigate the relationship between the growth of sequences (n_k) such that $\sup_k \|T^{n_k}\| < \infty$ and the possible size of $\sigma_p(T) \cap \mathbf{T}$.

Analogous results are also derived for continuous operator semigroups $(T_t)_{t \geq 0}$.