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Collegeville, PA 19128. *On the Spectrum of Operators on Banach Spaces*. Preliminary report.

The paper main goal is to investigate the variation of the spectrum on operators in infinite dimensional Banach spaces. In particular, it is shown that the spectrum function $\sigma : L(X) \mapsto \mathcal{K}(\mathbb{D})$ is Borel when the space of bounded operators $L(X)$ on a separable Banach space X is equipped with the strong operator topology and the Polish space of closed subsets of the closed unit disc of the plane $\mathcal{K}(\mathbb{D})$ is equipped with the Hausdorff topology. Remarks and results are given when other topologies are used. (Received September 14, 2006)