

[illegible]

“AI@Bicocca Flash Workshop”

Abstract: In this talk, we will review the historical development of research on commutators on Banach spaces, with a focus on characterizing whether a given Banach space is a Wintner space. Finally, we will demonstrate that Schatten p -spaces $\mathcal{C}_p$, $1 \leq p < \infty$, are Wintner spaces. In particular, an operator $T \in \mathcal{B}(\mathcal{C}_p)$ is a commutator in $\mathcal{B}(\mathcal{C}_p)$ if and only if $T - \lambda I$ is not $\mathcal{C}_p$ -strictly singular for every $\lambda \neq 0$. This talk is based on the joint work with L. X. Cheng, J. H. Huang and F. Sukochev.