MAFIA - the seminar you can't refuse

Generalization of Hilbert-Schmidt decomposition

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Abstract: It is well known that every compact linear map between Hilbert spaces can be described as a series of rank one maps that are associated with the eigenvectors of corresponding eigenvalue problems. However, due to a famous result by P. Enflo, it is futile to expect such results for compact linear maps acting between general Banach spaces. Nevertheless, we persevere in this direction and aim to describe conditions under which the Hilbert-Schmidt decomposition can be extended beyond Hilbert spaces.