Mathematics 663, Seminar in Analysis, Autumn, 2018
Proposal

Title: Banach Spaces for Analysts

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Text: P. Wojtaszczyk, *Banach Spaces for Analysts,* Cambridge Studies in Advanced Mathematics **25**, Cambridge University Press (recommended).

Grading. Classroom participation.

Optional work: Homework from problems in Wojtaszczyk's book or problems raised in class. Students can volunteer to present some of the material in Wojtaszczyk's book or other applications of Banach space theory.

Scope of course: There is much more in Wojtaszczyk's book than can be covered in one semester, so prospective students should tell me what they would like to see treated. Suggestions of topics in Banach space theory that are not in Wojtaszczyk's book but which have interest for mathemeticians who are not specialists in Banach space theory are also welcome.

Certainly we'll discuss some topics in "local theory", which involves the analysis of numerical parameters on finite dimensional spaces and, especially, their asymptotics as the dimension tends to infinity, because there are a huge number of applications of this theory. This will include a discussion of Euclidean sections, a topic not in Wojtaszczyk's book.