

İSTANBUL ANALYSIS SEMINARS

Interpolation of Banach Algebras

Sten Kaijser
Uppsala University

The abstract theory of interpolation (of operators and spaces) was created around 1960. Two fundamental papers were written by Calderón and Lions-Peetre, laying the foundations for the so called complex resp. real methods of interpolation. The theory was considerably generalized when Brudnyi and Kruglyak introduced the notion of K -divisibility and were able to use a general class of Banach algebras as parameters for the real method.

In spite of the successes of the theory there are some problems that were only recently treated. One of these concerns interpolation of Banach algebras, where a difficulty has been the fact that if A_0 and A_1 are Banach algebras, then the sum-space $A_0 + A_1$ is in general not.

Date and Time: October 6, 2006, 15:30

Place: Sabancı Üniversitesi, Karaköy İletişim Merkezi,
Bankalar Caddesi No:2 Karaköy İstanbul

Please post

Interpolation of Banach Algebras

Sten Kaijser

Department of Mathematics, Uppsala University, Uppsala, Sweden
email:sten@math.uu.se

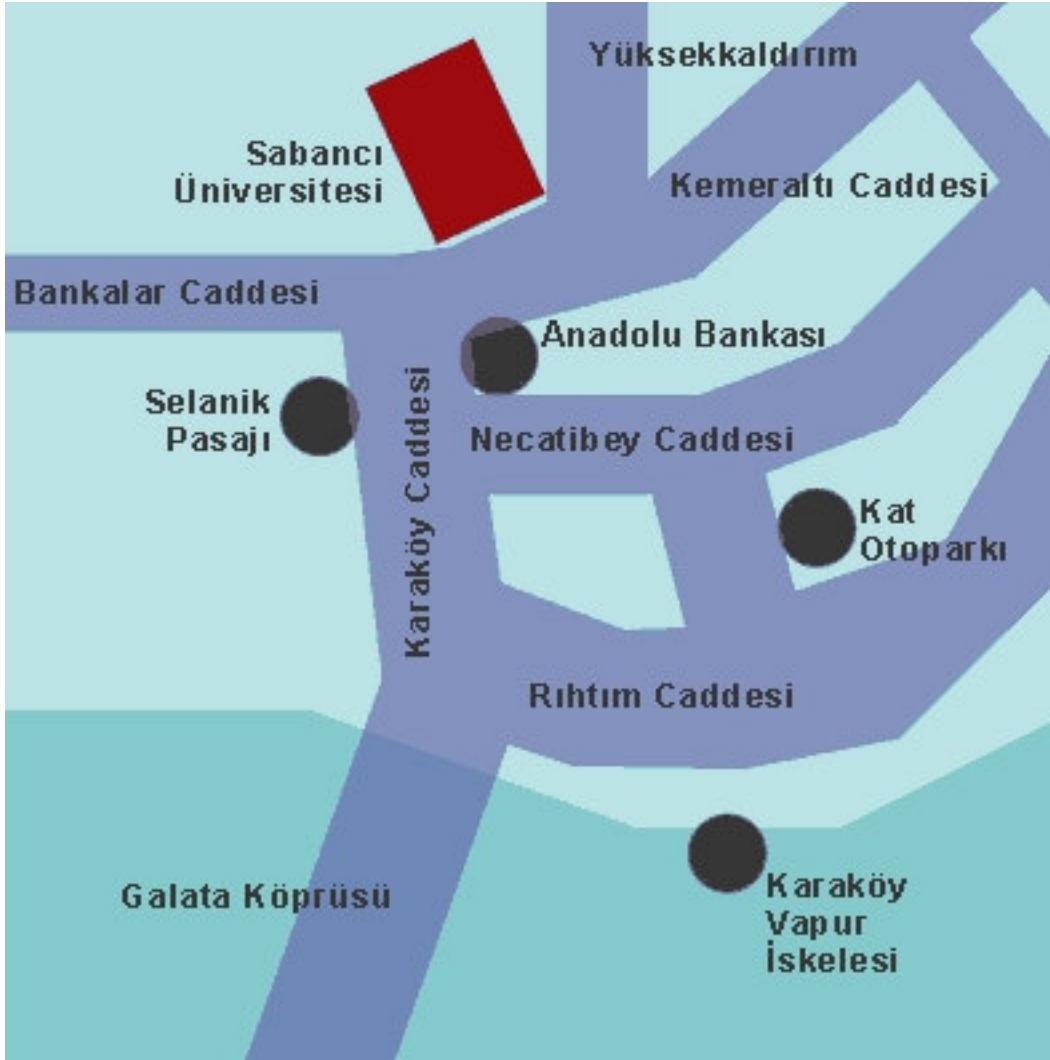
The abstract theory of interpolation (of operators and spaces) was created around 1960. Two fundamental papers were written by Calderón and Lions-Peetre, laying the foundations for the so called complex resp. real methods of interpolation. The theory was considerably generalized when Brudnyi and Kruglyak introduced the notion of K -divisibility and were able to use a general class of Banach algebras as parameters for the real method.

In spite of the successes of the theory there are some problems that were only recently treated. One of these concerns interpolation of Banach algebras, where a difficulty has been the fact that if A_0 and A_1 are Banach algebras, then the sum-space $A_0 + A_1$ is in general not.

[1] S. Kaijser, *Interpolation of Banach algebras and open sets*, Integral Equations Operator Theory **41** (2001), 189–222.

[2] (with P. Sunehag) *Interpolation of Banach algebras and tensor products of Banach couples*, J. Math. Anal. Appl. **278** (2003), no. 2, 367–375.

[3] (with A. Blanco and T. Ransford) *Real interpolation of Banach algebras and factorization of weakly compact homomorphisms*, J. Funct. Anal. **217** (2004), no. 1, 126–141.



Sketch of Karaköy İletişim Merkezi