

Indecomposable extensions of separable Banach spaces.
Richard Haydon

This talk will be a progress report on an ongoing research project that has involved the speaker, S. Argyros, D. Freeman, the late E. Odell, Th. Raikoftsalis, Th. Schlumprecht and D. Zissimopolou. The overall aim is to determine which separable Banach spaces Y admit an embedding into a separable indecomposable space or, more ambitiously, into a space with the scalar-plus-compact property. An optimistic conjecture is that Y should admit a separable indecomposable extension whenever Y has no subspace isomorphic to c_0 , but all our results need the stronger hypothesis that c_0 does not embed in Y^{**} (equivalently that ℓ_1 does not embed complementedly in Y^*). In the present talk I shall explain how to extend existing results from the case where Y^* is separable to general separable spaces Y .