

Mathematics Department Colloquium

Organizer: Nicolai Reshetikhin

Thursday, 4:10–5:00pm, 60 Evans

Sept. 20 **H. G. Dales**, Leeds, UK

Banach algebras of continuous functions and measures, and their second duals

For every Banach algebra A , there are two products on the second dual space A'' that make A'' into a Banach algebra; they may or may not coincide. A lot of information about the original algebra A comes easily by looking at these second duals. We shall first give the basic definitions and some (old and new) examples.

The first detailed example is the case where A is $C_0(\Omega)$, an algebra of continuous functions on a locally compact space Ω .

Next, let G be a locally compact group, and let $L^1(G)$ and $M(G)$ be the group algebra and the measure algebra on G , respectively. We shall describe the second duals $L^1(G)''$ and $M(G)''$, giving some classical results, some new results, and some open questions.