

*Banach Algebras 2009*

*A conference supported by the European Science Foundation under the  
ESF-EMS-ERCOT partnership*

*July 14-24, 2009, Stefan Banach International Mathematical Center, Będlewo,  
Poland*

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***Sheaves of  $C^*$ -Algebras***

ABSTRACT. I shall report on joint work in progress with Pere Ara (Barcelona) in which we develop the basics of a theory of sheaves of  $C^*$ -algebras and, in particular, compare it to the existing theory of upper semicontinuous  $C^*$ -bundles. The details of two fundamental examples, the local multiplier sheaf and the injective envelope sheaf, are discussed. We aim to achieve a sheaf-theoretic description of the local multiplier algebra of a  $C^*$ -algebra.