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## **Amenability for Actions of Groups on $C^*$ -algebras**

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In this lecture I will explain recent developments in the theory of amenability for actions of groups on  $C^*$ -algebras and Fell bundles, based on joint works with Siegfried Echterhoff, Rufus Willett, Fernando Abadie and Damin Ferraro. Our main results prove that essentially all known notions of amenability are equivalent. We also extend Matsumura's theorem to actions of exact locally compact groups on commutative  $C^*$ -algebras and give a counterexample for the weak containment problem for actions on noncommutative  $C^*$ -algebras.