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*Lie algebroids arising from infinite dimensional Lie theory*

A classical construction of Atiyah assign to any (real or complex) Lie group  $G$  and manifold  $M$  a Lie algebroid over  $M$ . The spirit behind our work is to put Atiyah's construction within an algebraic context, replace  $M$  by a scheme  $X$  and  $G$  by a "simple" reductive group scheme  $G$  over  $X$  in the sense of Demazure-Grothendieck (such groups arise naturally in infinite dimensional Lie theory). Lie algebroids in an algebraic sense were also considered by Beilinson and Bernstein. We will explain how the present work relates to theirs. This is joint work with J. Kuttler and F. Quallbrunn.