



The topology of Gelfand–Zeitlin fibers

Jeffrey Carlson

Tufts University

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Resumo: It is known that fibers of unitary and orthogonal Gelfand–Zeitlin systems are iterated pullbacks of homogeneous spaces, but one might wish the resulting expressions were more explicit. We provide a new interpretation of GZ fibers as biquotients $H\backslash G/K$ of Lie groups, which both sheds light on previously known facts and makes much previously unknown structure visible. The proofs, surprisingly, follow in the main from basic linear algebra and the manipulation of fiber products, and should therefore be accessible to a wide audience. This all represents joint work with Jeremy Lane.