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Title:	A quantum-trace determinantal formula for matrix commutators, and applications
Authors:	Khurana, Dinesh (/jspui/browse?type=author&value=Khurana%2C+Dinesh)
Keywords:	Matrix commutators Determinants Binary quadratic forms Diophantine equations
Issue Date:	2012
Publisher:	Elsevier
Citation:	Linear Algebra and Its Applications 436(7), pp. 2380-2397
Abstract:	In this paper, we establish a determinantal formula for matrix commutators over a commutative ring, using (among other invariants) the quantum traces of and . Special forms of this determinantal formula include a "trace version", and a "supertrace version". Some applications of these formulas are given to the study of value sets of binary quadratic forms, the factorization of integral matrices, and the solution of certain simultaneous diophantine equations over commutative rings.
Description:	Only IISERM authors are available in the record.
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