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On mixed discriminants of positively definite matrix

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Abstract: In the paper, some new inequalities for the mixed discriminants of positively definite matrix are established, which are the matrix analogues of inequalities of the well-known mixed volumes function.

Keywords: Mixed discriminants, symmetric matrix, mixed volume, Aleksandrov's inequality.

Math. Subj. Class.: 15A09, 52A40

O mešanih diskriminantah pozitivno definitne matrike

Povzetek: V tem članku predstavimo nekaj novih neenakosti za mešane diskriminante pozitivno definitnih matrik; gre za matrične analogije neenakosti, ki veljajo za dobro znano mešano volumsko funkcijo.

Ključne besede: Mešane diskriminante, simetrična matrika, mešani volumen, neenakost Aleksandrova.