

FURTHER RESULTS ON THE CRAIG-SAKAMOTO EQUATION*

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Abstract. In this paper, necessary and sufficient conditions are stated for the Craig-Sakamoto equation $\det(I - sA - tB) = \det(I - sA)\det(I - tB)$ to hold for all scalars $s, t \in \mathbb{C}$. Moreover, spectral properties for matrices A and B that satisfy this equation are investigated.

Key words. Determinant, Characteristic polynomial, Craig-Sakamoto equation, Bilinear form.

AMS subject classifications. 15A15, 15A18, 15A63.

* Received by the editors September 3, 2007. Accepted for publication September 11, 2008.
Handling Editor: Michael Tsatsomeros.

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