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A CHARACTERIZATION OF *B*-CONVEXITY AND *J*-CONVEXITY OF BANACH SPACES

KEN-ICHI MITANI¹ AND KICHI-SUKE SAITO 2*

This paper is dedicated to Professor Themistocles M. Rassias.

Submitted by M. Abel

ABSTRACT. In [K.-I. Mitani and K.-S. Saito, J. Math. Anal. Appl. 327 (2007), 898–907] we characterized the strict convexity, uniform convexity and uniform non-squareness of Banach spaces using ψ -direct sums of two Banach spaces, where ψ is a continuous convex function with some appropriate conditions on [0, 1]. In this paper, we characterize the B_n -convexity and J_n -convexity of Banach spaces using ψ -direct sums of n Banach spaces, where ψ is a continuous convex function with some appropriate conditions on a certain convex subset of \mathbb{R}^n .

¹ DEPARTMENT OF MATHEMATICS AND INFORMATION SCIENCE, GRADUATE SCHOOL OF SCIENCE AND TECHNOLOGY, NIIGATA UNIVERSITY, NIIGATA 950-2181, JAPAN. *E-mail address:* mitani@m.sc.niigata-u.ac.jp

 2 Department of Mathematics, Faculty of Science, Niigata University, Niigata 950-2181, Japan.

E-mail address: saito@math.sc.niigata-u.ac.jp

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 $^{^{\}ast}$ Corresponding author

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