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On non-associative L_p -spaces associated with Maharam traces on JBW -algebras.

In our previous paper we considered traces on JBW -algebras (without type I_2 -summands) with values in real complete vector lattices. A full description of these traces was obtained in the case of Maharam traces and a Radon-Nikodym type theorem for Maharam traces was established. In the present paper we introduce a class of Banach-Kantorovich spaces which are non-associative L_p -spaces associated with Maharam traces on JBW -algebras without a type I_2 -summands. (Received August 26, 2010)