

Meeting: 1003, Atlanta, Georgia, SS 22A, AMS Special Session on Spaces of Vector-Valued Functions, I

1003-46-99 **Qingying Bu*** (qbu@olemiss.edu), Department of Mathematics, University of Mississippi, University, MS 38677, and **Pei-Kee Lin** (pklin@memphis.edu), Department of Mathematics, University of Memphis, Memphis, TN 38152. *The Radon-Nikodym property for the projective tensor product of Köthe function spaces.*

Let E be an order continuous Köthe function space and X be a Banach space. We first show that $E \hat{\otimes} X^*$, the projective tensor product of E and X^* , semi-embeds into $E(X^*)$, the Köthe-Bochner function space. Then by this we show that $E \hat{\otimes} X^*$ has the Radon-Nikodym property if and only if both E and X^* do. As a consequence, if Banach lattices E and F have the Radon-Nikodym property then $E \hat{\otimes} F$ also has the Radon-Nikodym property. (Received August 05, 2004)