



**Qingying Bu** (qbu@olemiss.edu), Department of Mathematics, University of Mississippi, MS 38677, USA, *Some Geometric Properties Inherited by Positive Tensor Products of Banach Lattices.*

ABSTRACT. It is known that the projective and the injective tensor products  $X \hat{\otimes}_{\pi} Y$  and  $X \check{\otimes}_{\varepsilon} Y$  of Banach lattices  $X$  and  $Y$  may not be Banach lattices. Fremlin and Wittstock in 1970s introduced and investigated the positive projective and the positive injective tensor products  $X \hat{\otimes}_{|\pi|} Y$  and  $X \check{\otimes}_{|\varepsilon|} Y$  of Banach lattices  $X$  and  $Y$ , respectively. Both  $X \hat{\otimes}_{|\pi|} Y$  and  $X \check{\otimes}_{|\varepsilon|} Y$  are Banach lattices. In this talk, first we give sequential representations for  $X \hat{\otimes}_{|\pi|} Y$  and  $X \check{\otimes}_{|\varepsilon|} Y$  whenever one of  $X$  and  $Y$  is an atomic Banach lattice. Then we use these sequential representations to discuss some geometric properties inherited by  $X \hat{\otimes}_{|\pi|} Y$  and  $X \check{\otimes}_{|\varepsilon|} Y$ , such as reflexivity, the Radon-Nikodym property, and the KB-space property.