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**Michael Roysdon\*** (mroysdon@kent.edu), 233 MSB, 1300 Lefton Esplanade, Kent, OH 44242,  
and **Sudan Xing**.  *$L_p$ -Brunn-Minkowski type inequalities and a  $L_p$ -Borell-Brascamp-Lieb  
inequality.*

This talk concerns an  $L_p$ -extension of the famous Borell-Brascamp-Lieb inequality, which asserts that for any triple of measurable which satisfy reasonable averaging conditions, their integrals exhibit concavity.

As a consequence of this generalization, we extend the  $L_p$ -Brunn-Minkowski inequality to the class of  $\beta$ -concave measures on  $\mathbb{R}^n$  and prove a related isoperimetric inequality.

This is a joint work with Sudan Xing. (Received August 14, 2020)