1147-52-317   **Carlos Hugo Jimenez*** (`hugojimenez@mat.puc-rio.br`), Departamento de Matemática / PUC-Rio, Rua Marquês de São Vicente, 225 - Ed Leme, sala 862, Rio de Janeiro, RJ 22420040, Brazil, and **Julian Eduardo Haddad** and **Leticia Alves**. *A functional extension of the Busemann-Petty centroid inequality.*

In this talk we will present a new functional inequality that in particular for characteristic functions of convex bodies recovers the Busemann-Petty centroid inequality. Among the main ingredients for this new inequality we have the functional Minkowski problem. If time permits we will point out some connections of this inequality with some affine Sobolev inequalities. (Received January 18, 2019)

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