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On Brunn-Minkowski type inequalities for polar bodies

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In this talk we will discuss about some Brunn-Minkowski type inequalities involving the notion of polarity of convex bodies. More precisely, we will show a generalization for the p-sum of convex bodies of previous results by Firey for the polar set, as well as an equivalent multiplicative version of it, which also provides an alternative proof for Firey's results.

On the other hand, we will make some considerations for the polar set of the so-called difference body with respect to the Minkowski addition and p-sum, and we will discuss about the more convenient operation that should be taken into account in order to get a Rogers-Shephard type inequality.

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