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**T Bisztriczky\*** (tbisztri@ucalgary.ca) and **Deborah Oliveros**. *Self-dual Polytopes and Extremal Configurations*. Preliminary report.

Let  $V$  be a set (configuration) of  $n > d$  points in the Euclidean  $d$ -space, and  $e(V)$  denote the number of times  $V$  attains its diameter. We say that  $V$  is extremal if  $e(V)$  is the maximum of  $e(W)$  for any set  $W$  of  $n$  points in the Euclidean  $d$ -space. It is known that extremal configurations and self-dual  $d$ -polytopes are connected via ball-polytopes, and we examine this connection. (Received January 22, 2019)