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Valeriu Soltan* (vsoltan@gmu.edu), 4400 University Drive, Fairfax, VA 22030. *Polarity and separation of convex cones*. Preliminary report.

Given a nonempty closed convex cone $C \subset \mathbb{R}^n$ and its (negative) polar cone C° , we prove that the set $\text{rint}C \cap (-\text{rint}C^\circ)$ is nonempty and find its dimension. Based on this assertion, we establish new results on separation of C and C° by hyperplanes. (Received February 06, 2018)