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Rasoul Ahangari Maleki and **Liana Şega*** (segal@umkc.edu). *The absolutely Koszul and Backelin-Roos properties for spaces of quadrics of small codimension.*

Let k be a field and let R be a quadratic standard graded k -algebra with $\dim_k R_2 \leq 3$. We construct a graded surjective Golod homomorphism $\varphi: P \rightarrow R$ such that P is a complete intersection of codimension at most 3. Furthermore, we show that R is absolutely Koszul (that is, every finitely generated R -module has finite linearity defect) if and only if R is Koszul if and only if R is not a trivial fiber extension of a non-Koszul quadratic algebra of embedding dimension 3. In particular, we recover earlier results on the Koszul property of Backelin, Conca and D'Alì. (Received February 12, 2018)