Bilinkage in codimension 3 and canonical surfaces of degree 18 in $\mathbb{P}^5$

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Abstract. We study the behavior of the bilinkage process in codimension 3. In particular, we construct a smooth canonically embedded and linearly normal surface of general type of degree 18 in $\mathbb{P}^5$; this is probably the highest degree such a surface may have. Next, we apply our construction to find a geometric description of Tonoli Calabi-Yau threefolds in $\mathbb{P}^6$.