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Stefan O Tohaneanu* (tohaneanu@uidaho.edu), Department of Mathematics, University of Idaho, Moscow, ID 83844. *The set-theoretic complete intersection property of some subspace arrangements.*

In the 60's Hartshorne gave a counter-example to the conjecture from the XIX century that every variety is the intersection of as many hypersurfaces as the codimension is (i.e., set-theoretic complete intersection). The counter-example is a union of two complex 2-planes in \mathbb{P}^3 . This counter-example led to the very difficult conjecture (named after Hartshorne) that every complex irreducible curve in \mathbb{P}^3 is the intersection of two hypersurfaces. Also, it led to the study of classes of subspace arrangements that have or do not have the property of being set-theoretic complete intersection. In this presentation we show that star configuration are set-theoretic complete intersections, yet some other subspace arrangements defined similarly do not have this property. (Received February 07, 2016)