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Brian Harbourne* (bharbourne1@unl.edu), Math Department, University of Nebraska-Lincoln, Lincoln, NE 68588. *The concept of geproci subsets of projective 3-space*. Preliminary report.

The occurrence of finite subsets $Z \subset \mathbf{P}^3$ whose general projection to \mathbf{P}^2 is a complete intersection was raised in 2011 by F. Polizzi. Such sets are now called geproci sets. One example is given by a complete intersection in a plane. Another is given by a grid of lines on a smooth quadric. The fact that there are other examples became known only in 2018 as a by-product of work on unexpected surfaces, which in turn was motivated by work on hyperplane arrangements. I will review how these concepts are related and discuss recent results on geproci sets. (Received August 22, 2021)