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Bogdan Ichim* (bogdan.ichim@imar.ro), **Lukas Katthän** and **Julio José Moyano-Fernández**. *How to compute the Stanley depth of a module.*

We introduce an algorithm for computing the Stanley depth of a finitely generated multigraded module M over the polynomial ring $K[X_1, \dots, X_n]$. Moreover, we give an example of a module whose Stanley depth is strictly greater than the depth of its syzygy module. In particular, we obtain complete answers for two open questions raised by J. Herzog. (Received February 10, 2015)