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Eloísa Grifo* (eloisa.grifo@virginia.edu), eloisa.grifo@virginia.edu. *Applying homological algebra to a problem on symbolic powers*. Preliminary report.

The containment problem for symbolic and ordinary powers of ideals asks when the containment $I^{(a)} \subseteq I^b$ holds. Under nice enough conditions, we can replace this question by a purely homological one: whether or not a certain map between Ext modules vanishes. In this talk, we will answer this question for some classes of ideals I , and along the way compute free resolutions for all powers of I . (Received February 15, 2018)