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**Jennifer Hom** (hom@math.gatech.edu), **Adam Simon Levine\*** (alevine@math.duke.edu) and  
**Tye Lidman** (tlid@math.ncsu.edu). *Knot concordance in homology cobordisms.*

While not every knot in the 3-sphere bounds a smoothly embedded disk in the 4-ball, every such knot bounds a non-locally-flat piecewise-linear (PL) disk. For knots in the boundaries of other contractible 4-manifolds, however, even this weaker statement need not hold; the second author gave the first examples of knots in homology spheres that cannot bound PL disks in any homology 4-ball. In other words, the group of knots in homology 3-spheres that bound homology 4-balls, modulo non-locally-flat PL concordance in homology cobordisms, is nontrivial. In the present talk, we shall show that this group is infinitely generated and contains elements of infinite order. (Received September 24, 2018)