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**Yu Pan\*** (yp37@math.duke.edu), Duke University, P.O.box 90320, 117 Physics BLOG, Math Department, Durham, NC 27708. *The long exact sequence associated to exact Lagrangian cobordisms*. Preliminary report.

To a Legendrian knot, one can associate an  $\mathcal{A}_\infty$  category, the augmentation category. An exact Lagrangian cobordism between two Legendrian knots gives a functor of the augmentation categories of the two ends. We study the functor and establish a long exact sequence relating the corresponding Legendrian cohomology categories of the two ends. As applications, we prove that the functor between augmentation categories is injective on objects, and find new obstructions to the existence of exact Lagrangian cobordisms. The main technique is a recent work of Chantraine, Dimitroglou Rizell, Ghiggini and Golovko on Cthulhu homology. (Received January 18, 2016)