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**Laura Rider\*** (laurajoymath@gmail.com). *Mixed Structures in geometric representation theory*. Preliminary report.

A powerful tool in geometric representation theory is that of mixed sheaves — these often give a natural grading on representation theoretic categories of interest. My talk will be primarily expository. I'll discuss Deligne's theory of weights, mixed structures for affine stratifications versus non-affine, and mixed structures in positive characteristic. I'll also discuss some results in this setting from works joint with Pramod Achar and Amber Russell. (Received January 19, 2016)