1077-17-1762 **Jeannette Mun Larsen*** (JeannetteLarsen@my.unt.edu), 2019 Elk Trail, Harker Heights, TX 76548. *Equivalence Classes of Subquotients of Pseudodifferential Operator Modules on the Line.* Preliminary report.

Consider the spaces Ψ of pseudodifferential operators between spaces of tensor densities on the line. These spaces are modules for the Lie algebra of vector fields on the line, and their degree filtration Ψ^K is invariant under this module structure. The question of the equivalence classes of the subquotients Ψ^K / Ψ^{K-L} has been considered by Lecomte and Ovsienko, but only in the case of operators between tensor densities of the same degree. We treat the projectively split case in general. The subquotients at L = 5 are particularly interesting: complete invariants for their equivalence classes are given by pencils of conics and cubics in a certain plane of parameters associated to the tensor densities. (Received September 20, 2011)