1052-22-217 Milen Yakimov* (yakimov@math.lsu.edu), Department of Mathematics, LSU, Baton Rouge, LA 70803. Weak splitting of surjective Poisson submersions.

Many interesting Poisson structures on homogeneous spaces, e.g. flag varieties and double flag varieties arise as projections from Poisson structures on Heisenberg and Drinfeld doubles. We will describe a general idea of weak splittings of those, based on the notion of Poisson–Dirac submanifolds studied by Crainic, Fernandes, and Xu, and a theorem that this is always possible for large classes of reductive doubles. (Received August 28, 2009)