Multiplicative Dirac structures revisited

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[1] IMPA

We consider multiplicative Dirac structure on Lie groupoids G, i.e., Dirac structures which are subgroupoids of the $TG + T^*G$, and discuss the problem of finding their infinitesimal descriptions (previously considered by Drummond, Ortiz and Jotz). An example is given by the bialgebroids associated with Poisson groupoids. Our approach to this problem brings in ideas from graded geometry and representations up to homotopy.