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Theresa Brons* (theresabrons@gmail.com). *Parabolic Subgroups and the Line-Bundle Cohomology over the Flag Variety G/B* . Preliminary report.

H.H. Andersen determined the socle of $\mathcal{H}^1(\lambda)$, which is potentially non-zero only when there exists a unique simple root α such that $\langle \lambda, \alpha^\vee \rangle < 0$. In this work he did so by first determining the socle in the case when G is of type A_1 where $\mathcal{H}^1(\lambda)$ a Weyl module and λ an anti-dominant weight, and later extended this to the case when $P(\alpha)$ is a minimal parabolic subgroup. In this talk, this approach will be generalized, leading to some new vanishing results and some interesting avenues for further study. (Received July 28, 2014)