

1125-22-1795

Markus Hunziker (markus_hunziker@baylor.edu), **John A. Miller***
(john_miller5@baylor.edu) and **Mark R. Sepanski** (mark_sepanski@baylor.edu). *Syzygies
and covariant differential operators.*

We provide explicit descriptions of minimal free resolutions that appear in classical invariant theory. More precisely, using Howe duality and recent work by Enright, Hunziker, and Prueett, we interpret these resolutions as Bernstein–Gelfand–Gelfand resolutions of unitary highest weight representations and then describe the differentials explicitly in terms of covariant differential operators on Hermitian symmetric spaces that were introduced by Jakobsen in the 1980’s. (Received September 19, 2016)