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**Raul Gomez\*** (rgomez@uanl.edu.mx), El Centro 123 Col. Avita Anahuac, 66450 San Nicolas, Mexico. *Invariant trilinear forms on induced representations of  $PGL(2, \mathbb{R})$ .*

Bernstein and Reznikov introduced a triple integral formula to describe a family of invariant trilinear forms for induced representations of  $PGL(2, \mathbb{R})$ . However, they left open the question of computing the full space of invariants. Using the definition of the Schwartz space of a Nash manifold, together with some homological algebra, we will show how to describe the remaining trilinear forms. We will then show how these results can be extended to induced representations of real rank one groups, refining in this way some results previously obtained by Clerc, Kobayashi, Ørsted and Pevzner. This is ongoing joint work with Birgit Speh. (Received January 24, 2022)