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**Christine Berkesch\***, Mathematics Department, Duke University, Box 90320, Durham, NC 27708, and **Laura Felicia Matusevich**. *Classical and equivariant hypergeometric D-modules*.

The solutions of classical Horn systems of differential equations, including the Gauss and Appell–Lauricella hypergeometric equations, are among the most studied functions in mathematics. After applying a change of variables that gives an isomorphism of solution spaces, Horn systems are transformed into torus-equivariant systems, and the combinatorial tools of toric geometry have provided descriptions of important D-module theoretic properties of these new systems. While this change of variables does not induce an isomorphism at the level of differential equations, we establish a quotient relationship between Horn systems and their equivariant counterparts that opens the door for passage of these D-module theoretic properties to the classical setting. (Received July 31, 2011)