

1106-35-1718

Danny Arrigo* (darrigo@uca.edu), 201 Donaghey Ave., Conway, AR 72035, and **Kyle Barker**.
Symmetries of the Gross-Pitaevskii equation. Preliminary report.

We consider the classical and nonclassical symmetries of the Gross-Pitaevskii equation (GPE). We will show that the nonclassical symmetries are more general than the classical symmetries. We further consider first order compatibility and the GPE and show a class of compatible equations exists that are not obtainable by the symmetry method. (Received September 15, 2014)