
ROMAN POPOVYCH, Brock University

Potential symmetries in dimension three

Potential symmetries of partial differential equations with more than two independent variables are considered. Possible strategies for gauging potential are discussed. A special attention is paid to the case of three independent variables. As illustrating examples, we present gauges of potentials and nontrivial potential symmetries for the $(1+2)$ -dimensional linear heat, Schrödinger and wave equations, the three-dimensional Laplace equation and generalizations of these equations.