

Baston, R. J.

Verma modules and differential conformal invariants. (English) Zbl 0732.53011
J. Differ. Geom. 32, No. 3, 851-898 (1990).

From the author's abstract: "A distinguished class of differential invariants of conformal structures is constructed using homomorphisms of Verma modules and Cartan's conformal connection. This class reduces to a large subset of the class of differential operators invariant by conformal translation on flat conformal manifolds, and operators in it may be expressed in terms of the Levi-Civita connection and the Ricci curvature of a metric on the conformal class. Composition of these differential operators yields further differential invariants which depend on the conformal curvature.

Reviewer: [A. Verona \(Los Angeles\)](#)

MSC:

- [53A30](#) Conformal differential geometry (MSC2010)
- [53C15](#) General geometric structures on manifolds (almost complex, almost product structures, etc.)
- [22E47](#) Representations of Lie and real algebraic groups: algebraic methods (Verma modules, etc.)
- [58J70](#) Invariance and symmetry properties for PDEs on manifolds

Cited in **15** Documents

Keywords:

[differential invariants](#); [conformal structures](#); [Verma modules](#); [conformal connection](#); [differential operators](#)

Full Text: [DOI](#)