

Vaisman, I.**Secondary characteristic classes: A survey.** (English) [Zbl 0804.57015](#)

Szente, J. (ed.) et al., Differential geometry and its applications. Proceedings of a colloquium, held in Eger, Hungary, August 20-25, 1989, organized by the János Bolyai Mathematical Society. Amsterdam: North-Holland Publishing Company. Colloq. Math. Soc. János Bolyai. 56, 671-689 (1992).

This is a survey on some geometric phenomena (existence, rigidity, variation, etc.) which occur in the theory of secondary characteristic classes. According to the author's introduction, it is intended for non-specialists, so it refers to basic facts only and only one approach – that of *D. Lehmann* [Ann. Inst. Fourier 24, No. 3, 219-266 (1974; [Zbl 0268.57009](#))] – has been chosen from many of those which exist in the literature.

For the entire collection see [[Zbl 0764.00002](#)].

Reviewer: [P. Walczak \(Łódź\)](#)

MSC:

[57R32](#) Classifying spaces for foliations; Gelfand-Fuks cohomology

[57R20](#) Characteristic classes and numbers in differential topology

[57R30](#) Foliations in differential topology; geometric theory

Keywords:

[connection](#); [curvature](#); [invariant polynomials](#); [Chern-Weil homomorphism](#); [secondary Chern-Weil homomorphism](#); [secondary characteristic classes](#)