

Item: 1 of 1 | [Return to headlines](#)[MSN-Support](#) | [Help Index](#)Select alternative format: [BibTeX](#) | [ASCII](#)**MR788282 (86i:57032)****[Heitsch, J. \(1-ILCC\)](#); [Hurder, S. \(1-ILCC\)](#)****Secondary classes, Weil measures and the geometry of foliations.***[J. Differential Geom.](#)* **20** (1984), *no. 2*, 291–309.[57R30 \(53C12 57R20\)](#)[Journal](#)[Article](#)[Doc Delivery](#)**References: 0****[Reference Citations: 3](#)****[Review Citations: 4](#)**

The authors use the Chern-Weil theory of characteristic classes to define a set of operators canonically associated to a C^2 foliation \mathcal{F} on a manifold M . These operators determine the residual secondary classes. For a compact foliated manifold M these operators yield a vector-valued measure on the Σ -algebra of measurable saturated sets in M . For a measurable saturated subset B and a residual class $y_{ICJ} \in H^p(WO_n)$ there is a well-defined restriction $\Delta_*(y_{ICJ})|B \in H^p(M)$. The value of $\Delta_*(y_{ICJ})|B$ can sometimes be determined from the restriction $\mathcal{F}|B$. The main results of the paper give conditions sufficient to imply that certain of these classes are zero, e.g., if \mathcal{F} is equicontinuous on B or if there exists an isotropic good invariant measure on B then the Godbillon-Vey classes of $\mathcal{F}|B$ vanish. The paper generalizes unpublished work of Duminy who proved that in codimension one the Godbillon-Vey class of \mathcal{F} vanishes if all the leaves of \mathcal{F} have nonexponential growth.

[Reviewed by John Cantwell](#)

© Copyright American Mathematical Society 1986, 2004