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Coarse geometry of foliations. (English summary)
Geometric study of foliations (*Tokyo*, 1993), 35–96, *World Sci. Publishing*, *River Edge*, *NJ*, 1994.
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This is a survey of some recent results concerning the coarse geometry, dynamics, index and spectral theory of foliations. Among other topics, it covers the coarse geometry of leaves, foliation dynamics (including expansion growth and entropy), a method of constructing open Riemannian manifolds of bounded geometry which are not quasi-isometric to leaves of foliations of compact manifolds (in any codimension), coarse cohomology and coronas for foliations, the foliated Novikov conjecture (which is shown to be true for a special class of foliations), isoperimetric functions and the spectral theory of some geometric differential operators on foliated Riemannian manifolds. It also contains a comprehensive list of references. Indeed, the survey brings to the reader's attention a number of ideas which should stimulate further studies of the geometry, topology and dynamics of foliations and related structures.

{For the entire collection see 96f:57001}

Reviewed by *P. G. Walczak*