Nihonkai Math.J.
vol.4(1993),73-85

# TRANSVERSAL CONFORMAL FIELDS OF FOLIATIONS

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## 1. Introduction

Let $(M, g_M, \mathcal{F})$ be a closed, oriented, connected Riemannian manifold of dimension $p+q$ with a transversally oriented foliation $\mathcal{F}$ of codimension $q \geq 2$ and a bundle-like metric $g_M$ with respect to $\mathcal{F}$. Let $Q$ be the normal bundle of $\mathcal{F}$ and $\pi : \Gamma(TM) \longrightarrow \Gamma(Q)$ the natural projection. We denote by $D$ the transversal Riemannian connection of $\mathcal{F}$. Let $V(\mathcal{F})$ denote the set of infinitesimal automorphisms of $\mathcal{F}$ and $\bar{V}(\mathcal{F}) = \{ \nu \in \Gamma(Q) \mid \nu = \pi(Y), Y \in V(\mathcal{F}) \}$, the set of transversal infinitesimal automorphisms of $\mathcal{F}$.

Throughout this paper, we also use the following notation:

$\tau$ : the tension field of $\mathcal{F}$,

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1991 Mathematics Subject Classification. Primary 53C12.
Key words and phrases. Foliation, Transversal infinitesimal automorphism, Transversal conformal field.