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On the Construction of \mathbb{R}^p -harmonic Morphisms and Conformal Actions

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摘要

关键词 [\$\mathbb{R}^p\$ -harmonic morphism](#) [Clifford system](#) [homogeneous function](#) [conformal field](#)

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On the Construction of \mathbb{R}^p -harmonic Morphisms and Conformal Actions

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Abstract We produce \mathbb{R}^p -harmonic morphisms by conformal foliations and Clifford systems. First, we give a useful criterion for a foliation on an m -dimensional Riemannian manifold locally generated by conformal fields to produce \mathbb{R}^p -harmonic morphisms. By using this criterion we manufacture conformal foliations, with codimension not equal to \mathbb{R}^p , which are locally the fibres of \mathbb{R}^p -harmonic morphisms. Then we give a new approach for the construction of \mathbb{R}^p -harmonic morphisms from $\mathbb{R}^m \setminus \{0\}$ to \mathbb{R}^n . By the well-known representation of Clifford algebras, we find an abundance of the new $\frac{23}{2}(m+1)$ -harmonic morphism $\phi: \mathbb{R}^m \setminus \{0\} \rightarrow \mathbb{R}^n$ where $m=2k\delta(n-1)$.

Key words [\$\mathbb{R}^p\$ -harmonic morphism](#) [Clifford system](#) [homogeneous function](#) [conformal field](#)

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