

曲面上一种等距不变量的构造

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摘要 提出一种基于曲面内蕴度量的等距变换不变量构造方法.通过不变几何基元构造不变核,再对不变核进行多重积分,得到曲面上的等距不变量.这种不变量完全基于曲面的内在属性,有直观的几何解释,并且不受数量约束.实验表明,它对于描述曲面的等距变换,如不同表情的同一人脸、不同姿态的同一人体运动等具有潜在应用意义.

关键词 [曲面度量,等距变换,不变量,非刚体运动.](#)

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A Construction Method for Surface Isometric Invariants

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Abstract In this paper, a new method to construct isometric invariants for surfaces is proposed based on intrinsic metric. The invariants are obtained by multiple integrals of invariant core, which is constructed by invariant geometric primitives on surfaces, and are fully dependent on the intrinsic properties of surfaces, with intuitive geometric meaning and infinite in number. The experiment results show that they have some potential in describing the isometric transformation of surfaces, such as different facial expressions of the same person, different posture movements of the same person and so on.

Key words [Surface metric](#) [isometric transformation](#) [invariants](#) [non-rigid motion.](#)

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