工程与应用

# 面向服装合体性评价的虚拟人体建模及体型预测

许轶超[1],陈 彬[3],丁永生[1,2],邹林刚[1]

1.东华大学 信息科学与技术学院，上海 201620
2.数字化纺织服装技术教育部工程研究中心，上海 201620
3.东华大学 服装学院，上海 201620

摘要 提出了面向服装合体性评价的三维人体建模及预测建模方法。按照人体控制部位的比例对模型主体部分进行平面截取，通过比例缩放的方式实现个性化三维人体建模，最后通过NURBS进行曲面重建。同时，针对服装合体性评价服务的特点，引入体型随年龄变化知识库，根据用户的个性化要求提供顾客未来体型预测。实验结果表明该方法既实现简单，又可得到较满意的视觉效果，可为服装合体性评价等个性化定制服务奠定基础，具有广泛的应用前景。

关键词 三维人体建模 控制部位截取 服装合体性评价 预测建模

分类号

# Human body modeling and forecasting for garment fit evaluation

XU Yi-chao[1],CHEN Bin[3],DING Yong-sheng[1,2],ZOU Lin-gang[1]

1.College of Information Sciences and Technology，Donghua University，Shanghai 201620，China
2.Engineering Research Center of Digitized Textile & Fashion Technology，Ministry of Education，Shanghai 201620，China
3.College of Fashion，Donghua University，Shanghai 201620，China

**Abstract**

The method of 3D human body modeling and forecasting is presented for garment fit evaluation.First，the standard body model is intercepted by planes at body's key parts which can express the shape of individual's figure and main part of body model，and then the individual's model is obtained by scaling the relative parts；Meanwhile，aiming at the character of garment fit evaluation service，the forecast modeling is provided according to personalization request by introducing the rules that body figure varies with age.The experiment result shows that proposed approach is easily realized simply and efficiently with satisfactory visual effect.So it can be applied to the service of the assessment of garment fit with widespread application prospect.

**Key words** 3D human body modeling key-part intercepting garment fit evaluation forecast modeling

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  - 丁永生
  - 
  - 邹林刚

通讯作者 许轶超 ysding@dhu.edu.cn