论文

AUTOMATED REASONING IN DIFFERENTIAL GEOMETRY AND MECHANICS USING THE CHARACTERISTIC METHOD Ⅳ. Bertrand Curves

CHOU Shangching(1),GAO Xiaoshan(2)

(1)Department of Computer Science,the Wichita State University,Wichita,KS 67260,UsA;(2)Institute of Systems Science, Academia Sinica, Beijing 100080, China

收稿日期   修回日期   网络版发布日期   接受日期

摘要   This paper reports the study of properties of the curve pairs of the Bertrand types using our automated reasoning program based on Wu's method of mechanical theorem proving for differential geometry. A complete list of results about Bertrand curvesin metric and affine spaces is derived mechanically. The list includes most of the known results of various Bertrand curves. We also derive some new results about Bertrand curves.

关键词   Mechanical theorem proving,metric differ

分类号

Abstract This paper reports the study of properties of the curve pairs of the Bertrand types using our automated reasoning program based on Wu's method of mechanical theorem proving for differential geometry. A complete list of results about Bertrand curvesin metric and affine spaces is derived mechanically. The list includes most of the known results of various Bertrand curves. We also derive some new results about Bertrand curves.

Key words   Mechanical theorem proving   metric differential geometry   affine differential geometry   Bertrand curves

DOI:

通讯作者

扩展功能

本文信息

▶ Supporting info
▶ PDF(0KB)
▶ [HTML全文](0KB)
▶ 参考文献

服务与反馈

▶ 把本文推荐给朋友
▶ 加入我的书架
▶ 加入引用管理器
▶ 复制索引
▶ Email Alert
▶ 文章反馈
▶ 浏览反馈信息

相关信息

▶ 本刊中 包含"Mechanical theorem proving,metric differ"的 相关文章
▶本文作者相关文章
· CHOU Shangching
· GAO Xiaoshan