

《Riemann 曲面》期末论文选题

1. 代数曲线的正规化与紧 Riemann 面, 参考文献: [7]。
2. 紧 Riemann 面总可嵌入到 \mathbb{P}^3 中, 参考文献: [8]。
3. 非紧 Riemann 面总可嵌入到 \mathbb{C}^3 中, 参考文献: [5, 16]。
4. 单值化定理 (Perron 族方法), 参考文献: [3, 5]。
5. 单值化定理 ($\bar{\partial}$ 问题的 L^2 方法), 参考文献: [16]。
6. 单值化定理 (紧 Riemann 面版), 参考文献: [10]。
7. Weierstrass 点与 Hurwitz 自同构定理, 参考文献: [3]。
8. 模形式与 Riemann 面, 参考文献: [9]。
9. 紧 Riemann 面上全纯丛的 Riemann-Roch 定理与秩为二的全纯丛的分类, 参考文献: [11]。
10. 拟共形映照与 Teichmüller 理论, 参考文献: [4]。
11. Torelli 定理, 参考文献: [3, 17]。
12. Riemann 双线性关系、Siegel 上半平面与 Schottky 问题, 参考文献: [3, 14]。
13. θ 函数、KP 方程与 Novikov 猜想 (Shiota 定理), 参考文献: [14, 15]。
14. Hard Lefschetz 定理、Primitive 分解与 Hodge-Riemann 双线性关系, 参考文献: [19, 18]。

15. Kodaira 消没定理和嵌入定理, 参考文献: [19, 2]。
16. Hirzebruch-Riemann-Roch 定理与 Noether 公式, 参考文献: [12]。
17. Grothendieck-Riemann-Roch 定理与 Riemann-Hurwitz 公式, 参考文献: [12]。
18. Hodge 定理的热方程证法, 参考文献: [1, 6]。
19. Calabi 猜想 (Yau 定理), 参考文献: [13]。

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