Info

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Normalization of plane projective $\mathbb{C}$-curves and Riemann surfaces

(Normalization of plane projective $\mathbb{C}$-curves into Riemann surfaces) Given an irreducible algebraic curve $Y = V(p) \subseteq \mathbb{C}\boldsymbol{P}^2$ there exists a Riemann surface X and a holomorphic map

$$\sigma : X \to \mathbb{C}\boldsymbol{P}^2$$

with Y as its image which is injective on $\sigma^{-1}(Y \setminus \operatorname{sing}(Y))$.

(Normalization of Riemann surfaces into plane projective $\mathbb{C}$-curves) Given a Riemann surface X there exists a holomorphic map

$$\sigma : X \to \mathbb{C}\boldsymbol{P}^2$$

such that $\sigma(X)$ is an irreducible algebraic curve with $\operatorname{sing}(\sigma(X))$ is either empty or consists of ordinary double points and σ is injective on $\sigma^{-1}(Y \setminus \operatorname{sing}(Y))$.

[1]

Current note has 0 direct children and 0 total descendants.

- stem
  - Objects stemming from $\mathbb{R}$-spaces of dimension 2
    - Riemann surfaces
      - Normalization of plane projective $\mathbb{C}$-curves and Riemann surfaces

And it has 16 siblings.

- stem
  - Objects stemming from $\mathbb{R}$-spaces of dimension 2
    - Riemann surfaces
      - Vector bundles on complex 1-manifolds
      - Classification of complex 1-manifold
      - Riemann's existence of holomorphic maps between compact Riemann surfaces
      - Divisors on compact Riemann surfaces
      - Fluid
      - Meromorphic differentials on Riemann surfaces
      - Holomorphic functions on a complex 1-manifold
      - Holomorphic maps of type $0 \xrightarrow{3} 0$
      - Rational maps
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      - Moduli space of $\mathbb{C}$-manifolds
      - Meromorphic functions on a Riemann surface
      - Normalization of plane projective $\mathbb{C}$-curves and Riemann surfaces
      - Riemann surfaces defined over a number field
      - Hyperelliptic Riemann surfaces
      - Riemann surfaces with a holomorphic 1-form

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1. https://www.math.wustl.edu/~matkerr/AGbook.pdf page 43-44 ↩