Info

This note, that was found here, as a part of a collection
is written (completely with human hands) by Rupadarshi Ray,
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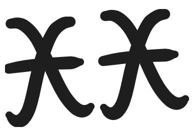
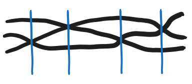
Holomorphic maps of type $0 \xrightarrow{3} 0$

We classify degree 3 maps

$$\mathbb{C}P^1 \xrightarrow{\text{degree}=3} \mathbb{C}P^1$$

by their branching profiles:

profiles (among allowed partitions of 4)	**monodromy representations**	**a fiber in the moduli**	**degree**	H	**Galois?**
$4=2+2$, that is, the profile is $$(3)^2$$ 	$\rho_1 \mapsto (123), (1$	$z \mapsto z^3$ is the unique	$1?$	$\frac{1}{3}$	
$4=1+1+2$, that is, the profile is $$(3),(1,2)^2$$ 	$\rho_1 \mapsto (123), (1$ $\rho_2 \mapsto (12), (13)$	z^3-3z	$1?$	$1=\frac{3\cdot 2}{3!}$	No; Deck is trivial
$4=1+1+1$, that is, the profile is $$(2,1)^4$$ *simple ramifications* 	ρ_1,ρ_2,ρ_3 maps to 3 transpositions so 3^3 possibilities, among which 3 are not connected	f_α	$4?$ 	$4=\frac{3^3-3}{3!}$	

[1]

Current note has 0 direct children and 0 total descendants.

- stem
  - Objects stemming from $\mathbb{R}$-spaces of dimension 2
    - Riemann surfaces
      - Holomorphic maps of type $0 \xrightarrow{3} 0$

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
      - Hurwitz scheme
      - 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://mathoverflow.net/q/398106/562926 ↩