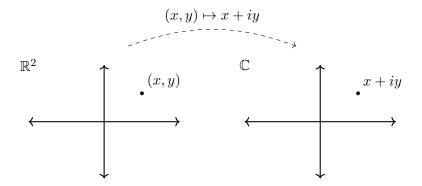
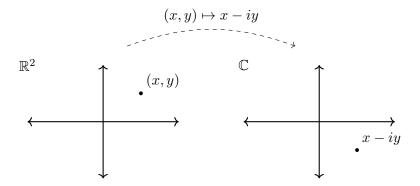
Possible Choices of Complex Co-ordinates for a Surface Moduli Spaces of Riemann Surfaces

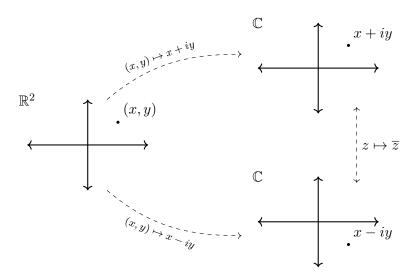
Zhaoshen Zhai

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April 23, 2023



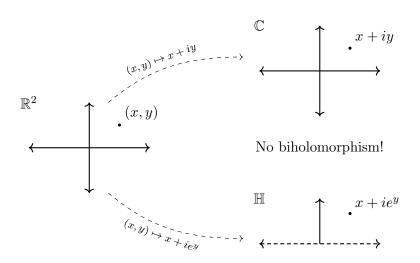




Refined question

Refined question

How many complex coordinates on \mathbb{R}^2 ? How many complex coordinates on \mathbb{R}^2 up to biholomorphism?

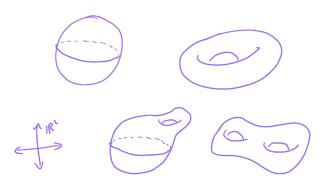


Riemann surfaces

What about for manifolds?

Definition

A *Riemann surface* is a connected 1-dimensional complex manifold.



Compact Riemann surfaces

Theorem (Classification)

Every compact Riemann surface is classified by its genus.

