0.1 Differentiable transition maps

0.1.1 Transition map recap

Given two charts with an overlap, we have a transition mapping between the two charts of the overlap, where the mapping corresponds to a position on the manifold.

0.1.2 Differentiable transition maps

If this mapping is differentiable, we have a differentiable manifold.

0.1.3 Smooth manifolds

If transition maps are smooth (C^∞) then the manifold is smooth.