

Re: computing geodesics, geodesic distance algorithms

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how about on riemannian manifolds in R^3
between two arbitrary points on the manifold

Robert Low wrote:

g.wall wrote:

does anyone know where i can find a good paper for the novice (im an EE)
on computing geodesics, or maybe a good algorithm outline for this?

You probably need to give more context to get a useful reply to this.

Geodesics are 'just' solutions to a second order ODE, so you can
use the ODE solver of your choice. But depending on the metric,
it may be possible to simplify the problem considerably before
resorting to numerics.

Also, what you do depends on whether you are trying to
find the geodesic starting of at a particular point and
in a particular direction, or seeking a geodesic
connecting a pair of points.