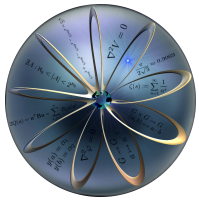

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fibration

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Defines	fibration

A fibration is a map satisfying the homotopy lifting property. This is easily seen to be equivalent to the following:

A map $f : X \to Y$ is a fibration if and only if there is a continuous function which given a path, ϕ, in Y and a point, x, lying above $\phi(0)$, returns a lift of ϕ, starting at x.

Let D^2 denote the set of complex numbers with modulus less than or equal to 1. An example of a fibration is the map $g : D^2 \to [-1, 1]$ sending a complex number z to $re(z)$.

Note that if we restrict g to the boundary of D^2, we do not get a fibration. Although we may still lift any path to begin at a prescribed point, we cannot make this assignment continuously.

Another class of fibrations are found in fibre bundles.