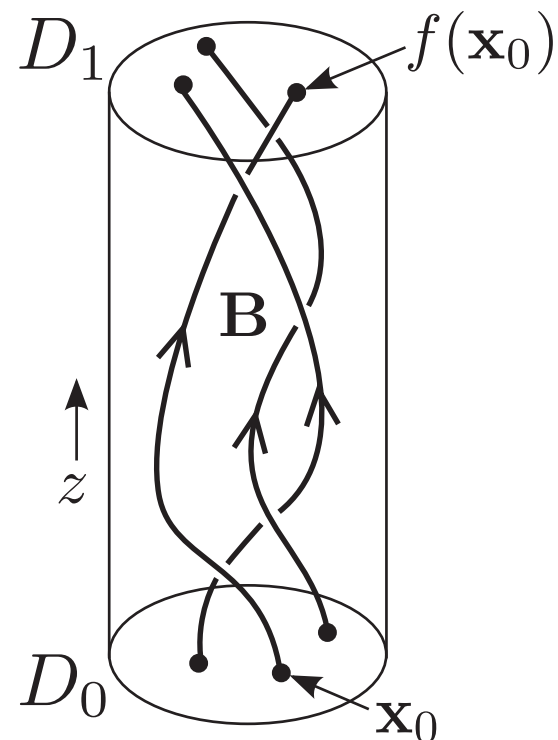


Problem of the Fix-point

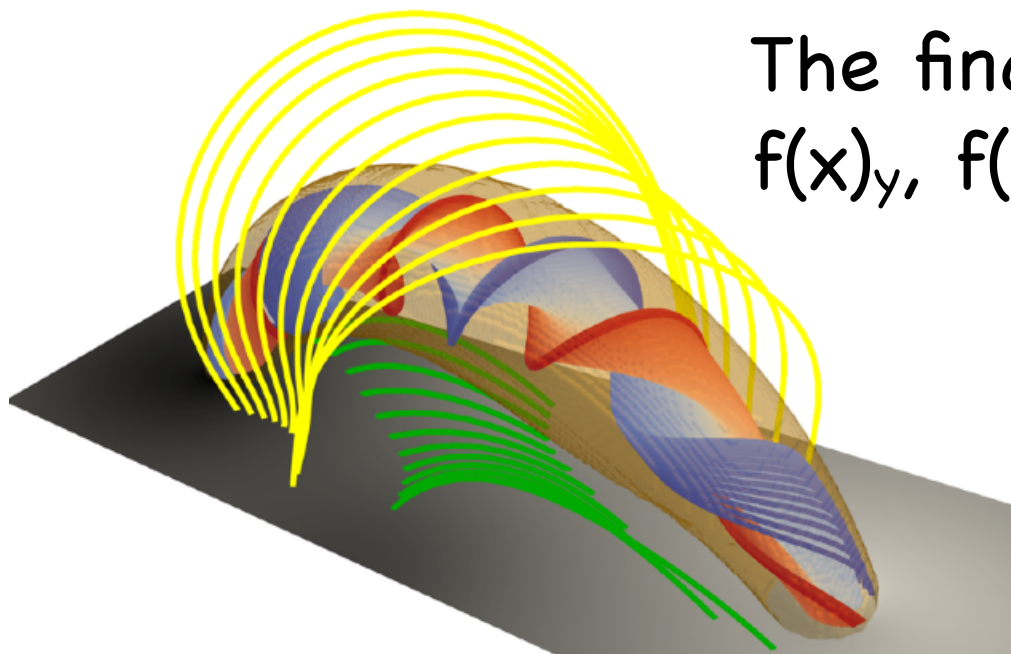
Why it's NOT easy to be used in the coronal case.



We need a self-map, in the upright B field configuration, it's easy to define the self-map. Yeates et al. 2010 – 2011 define the self-map by the field from D_0 to D_1 , then neglect the z coordinate.

- 1, $f: D_0 \rightarrow D_1$;
- 2, $f': D_1 \rightarrow D_0$.

The final self-map is $f' \circ f$, where $f' : (f(x)_x, f(x)_y, f(x)_z) \rightarrow (f(x)_x, f(x)_y, 0)$.



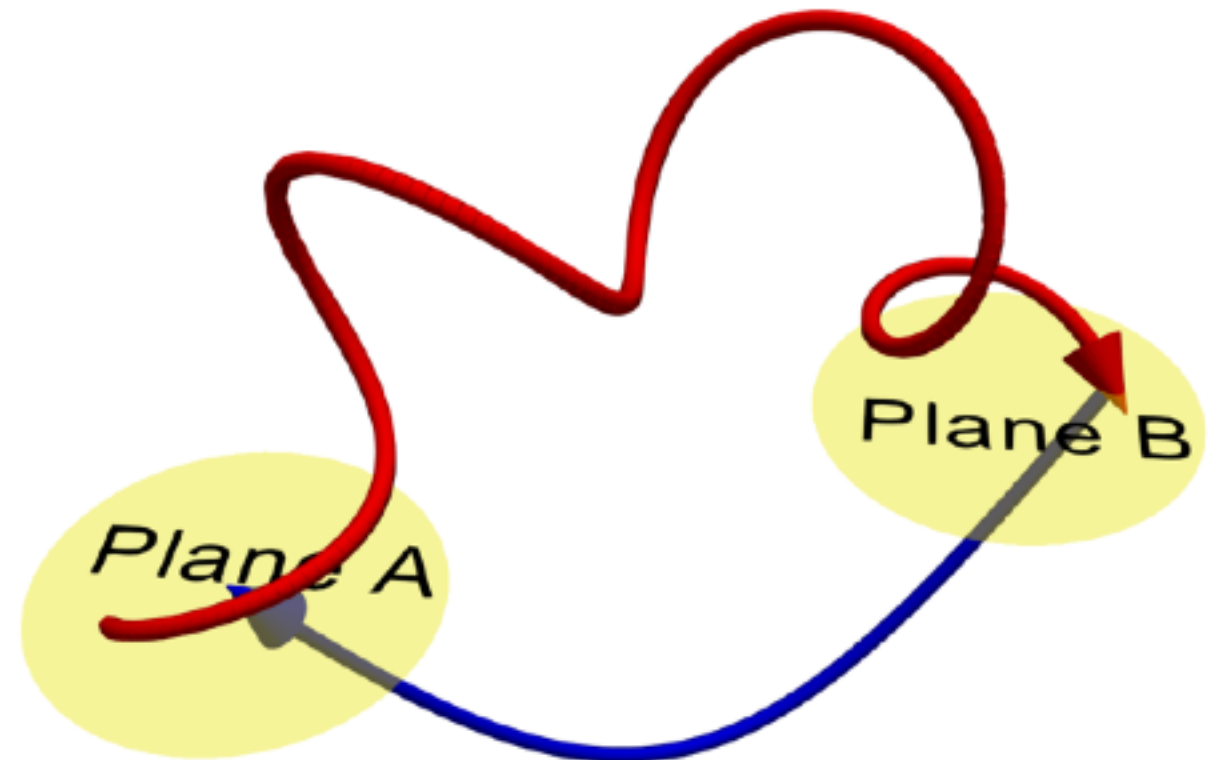
While, in the coronal case, we do **NOT** have a proper map **f'** .

Generalized Fix-point

Using **confined potential field** as the map f' , which is geometrical consistent with the isolate topological domain.

Then, we could have a relative fix-point of the topological B field.

Real Field Line Mapping



Reference Field Line Mapping