# BVPs (and IVPs)

## Pretty important for actually solving and modelling stuff

- $D$ represents the whole system
- $D_0$ represents the boundary of the system
- $D \to D_0$ projects the system onto its boundary
- A lift $\overline{D_0}$ of $D_0$ is a choice of boundary data
- N.B. unlike in “classical” algebraic topology, we allow extension-lifting problems to be non-strict, i.e. to have non-trivial 2-cells

# 5. “I want more category theory”