

# Hatcher Reading Group Notes

29. Juli 2020

## Definitions

### Annulus

Idea: Some plaintext.

Definition: Some formal foo  $y = x^2$  bar.

### Antipodal

Idea: Some plaintext.

Definition: Some formal foo  $y = x^2$  bar.

### Attached along a map

x

### Bijection

x

Boundary  
Cantor set  
Cartesian space  $\mathbb{R}^n$   
Cell complex  
Cell  $e^n$   
Cell structure  
Component  
Compact  
Cone  
Continuous  
Contractible space  
CW-pair  
CW complex  
Deformation  
Dimension of a CW complex  
Disc  $\mathbb{D}^n$   
Disjoint union  
Equivalence relation  
Genus  
Graph

x

Homeomorphic  
Homotopy  
Homotopy equivalence  
Homotopy extension property  
Homotopy Type  
House with two rooms  
Infinite sphere  $\mathbb{S}^\infty$   
Torus  $\mathbb{T}^n$   
Join  
Klein bottle  
Möbius band  
Mapping cylinder  
Neighborhood  
Null-homotopic  
Path-component  
Product of cell complexes  
Projection n-space  $\mathbb{C}P^n$   
Projection n-space  $\mathbb{R}P^n$   
Quotient map  
Quotient space

x

Reduced suspension

Rel

Relation of homotopy among maps  $X \rightarrow Y$

Retraction

Simplex

Skeleton

Subcomplex

Subspace of  $\mathbb{R}^n$

Topology

Smash product

Sphere  $\mathbb{S}^n$

Suspension

Wedge sum