Three Whitehead Theorems and Three Puppe Sequences

E. Dean Young and Jiazhen Xia (夏家桢)

December 15, 2023

Frame Title

- 1
- 2

- 1
- 2

Frame Title

```
def horn_filling_condition (X : SSet) (n i : Nat): Prop :=
  ∀ f : Λ[n, i] → X, ∃ g : Δ[n] → X,
  f = SSet.hornInclusion n i ≫ g

/-- A simplicial set is called an ∞-category
if it has the extension property for all inner horn inclusions
`Λ[n, i] → Δ[n]`, n ≥ 2, 0 < i < n. -/
def InfCategory := {X : SSet //
  ∀ (n i : Nat),
  n ≥ 2 ∧ 0 < i ∧ i < n → horn_filling_condition X n i}
```

References I