∞-categories

Malthe Sporring

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Questions:

1. Is the homotopy type of a topological space determined by its homotopy groups OR can two spaces have the same homotopy groups, but no weak hom. equivalence between them? (answer must be yes... but that poses problems)
2. Why is the hom functor $\pi_* : Top \to GrSet$ and not to $GrAb$?
3. Homotopy type definition: the equivalence class under weak homotopy equivalence. However, does this necessarily satisfy symmetry?
4. The homotopy category of spaces... Is it the "image" of the functor $F : A \to B$? Alongside isomorphisms? Is it adding inverses to all weak homotopy equivalent maps?