

Model independent
measurement discussion points

Stable and unstable

- Are pions usually treated as stable or unstable?
- What are the advantages and disadvantages of treating b-hadrons as “stable” or “unstable” in a measurement?
 - Do b-hadrons ever interact with the detector?
- What are the advantages and disadvantages of treating tau leptons as “stable” or “unstable” in a measurement?

Well defined?

- Which of these are
 - physically distinguishable in principle
 - Experimentally distinguishable in practice
1. Electrons from a Z decay vs electrons from a virtual photon
 2. Photons from QED FSR vs Photons from the hard matrix element
 3. Photons from QED FSR vs Photons from pion decay
 4. Muons from a tau vs muons from the hard matrix element
 5. Jets from a top decay vs jets from gluon exchange
 6. Neutrinos from a W decay vs neutrinos from charm decay
 7. Neutrinos from a W decay vs a Dark Matter particle
 8. Jets from a gluon vs jets from a quark