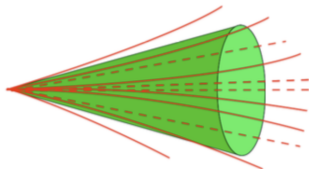


(a) Hadronic τ decay



(b) Non-resonant hadronic jet

- **Goal:** Identify hadronic final states from τ decays.
- Typically clustered within core cone.
- Could use a BDT - based on 'human' observations to identify events.
- **Better:** Use a neural network.
- **RNN:** use information from any number of input tracks to identify τ decays from any input vector (long short term memory cells).
- Background rejection improved by $> 75\%$ compared to BDT!

