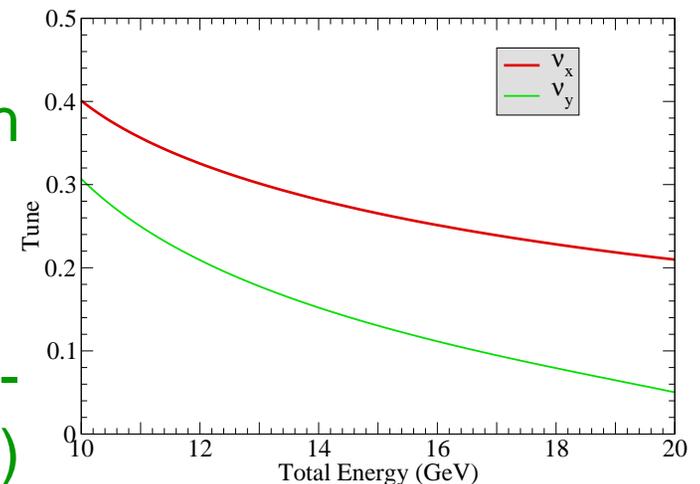


- Small changes in voltage or frequency can change the phase space topology significantly—explore these parameters
  - ◆ Opening or closing the path from minimum to maximum energy
  - ◆ Muon machines will run close to the edge
- Diagnostics required
  - ◆ Minimally: measurement of intensity at the final energy
    - ★ Faraday cup, integrating toroid (generate dispersion)
  - ◆ Kick out turn by turn to explore intermediate energies
  - ◆ Time measurement would give even more information

- Study crossing of a large number of resonances—vary machine parameters and explore results
  - ◆ Change tune profile to change which resonances occur at which energies
  - ◆ Can cross one or many resonances
  - ◆ Changing longitudinal machine parameters (frequency, injection energy) changes which resonances you cross slowly
- Diagnostics required
  - ◆ Optical transition radiation from thin foils in ring, gated camera
  - ◆ Extract (any turn) into pepper-pot emittance rig
  - ◆ BPMs for lattice optics calibration



- We're at a pre-proposal stage—expressions of interest, not binding commitments
- Commitment of manpower
  - ◆ Around 1–2 man-year per year total
- Lattice design studies and simulations
- Possibly magnet design work
- Possibly instrumentation design
- No hardware construction envisioned
- No collaboration funds being requested