Overview of “Exotic Hadrons” Chapter

- Overall goal: Discuss prospects for studying exotic hadrons with proton beams of $p_{\mathrm{max}} = 30$ GeV/c, $\sqrt{s} < 7.6$ GeV
- Plan to review recent progress in the field
  - Emphasis on states/reactions well suited for study at this facility
    - Many candidate exotic states have only been observed by one experiment - identification and study in complementary reaction mechanisms is crucial!
  - Assume most discussion of techniques + details of reactions will happen earlier in the text
- Workshop plans
  - Review planned contributions
    - Talk by Randy Lewis: “Tetraquarks on the lattice from T_{bb} to T_{cc}”
  - Discussion of “golden channels” to focus on

Outline of “Exotic Hadrons” Chapter

1. Input and knowledge from previous and running experiments (both for light and heavy exotics):
   - Photoproduction Experiments (B. McKinnon/S. Dobbs)
   - e+e- Experiments (N. Huesken)
   - Hadron Beam experiments (B. Grube)
   - LHC Experiments (L. An)
2. Light quark exotics
   - Lattice direct calculation - C. Morningstar
   - Dibaryons - Bashkanov
   - Phenomenology - E. Swanson, C. Fischer, F. Giacosa
3. Heavy exotics
   - Lattice direct calculation - C. Morningstar
   - BOEFT - N. Brambilla
   - Lattice BO static energies - C. Morningstar
   - Molecules - C. Hanahrt, F.K. Guo, T. Mehen
   - Production - N. Brambilla, T. Mehen
4. Expectations at SiS100: (S. Dobbs + more)
   - Example heavy quark exotic: Pc+ in J/psi p and D(*) Lambdac+
   - Example light quark exotic: phi(2170) in phi pi+pi-