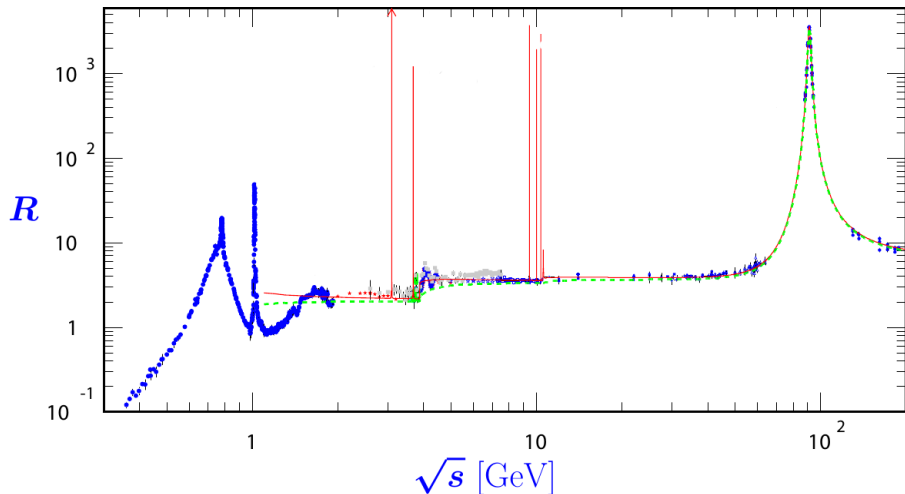


- Why do we want to measure dileptons in HICs?
- What are the peaks in the following figure of $R_{e^+e^- \rightarrow \text{hadrons}}$?
- Can you explain the horizontal lines (values: 2, 3.333, 3.667)?



- What are the “fundamental” and “accidental” symmetries of QCD?
- What’s chiral symmetry?
- Why is it (intuitively) only true for massless quarks?
- What’s the main consequence of spontaneous symmetry breaking?
- What are anomalies? Are they always “bad” for models?
- What’s the main meaning of the McLerran-Toimela formula?
- Can one decide from first principles, whether χ SR is caused by “dropping hadron masses” or “resonance melting”?

- 1 Why do we need effective hadronic models to theoretically study electromagnetic probes in HICs?
- 2 How do we constrain effective hadronic models theoretically?
- 3 How do we determine all the parameters (couplings, masses, form factors) of the models?
- 4 What is left to be predicted from such models?
- 5 What are the most important processes leading to medium modifications of the vector mesons' spectral functions?
- 6 What are the different dilepton sources that are important in URHICs?
- 7 Which interesting information can be gained from investigating also $\ell^+\ell^-p_T$ spectra in addition to M spectra?
- 8 What fundamental properties about the hot and dense medium produced in HICs have we inferred from $\ell^+\ell^-$ data so far?