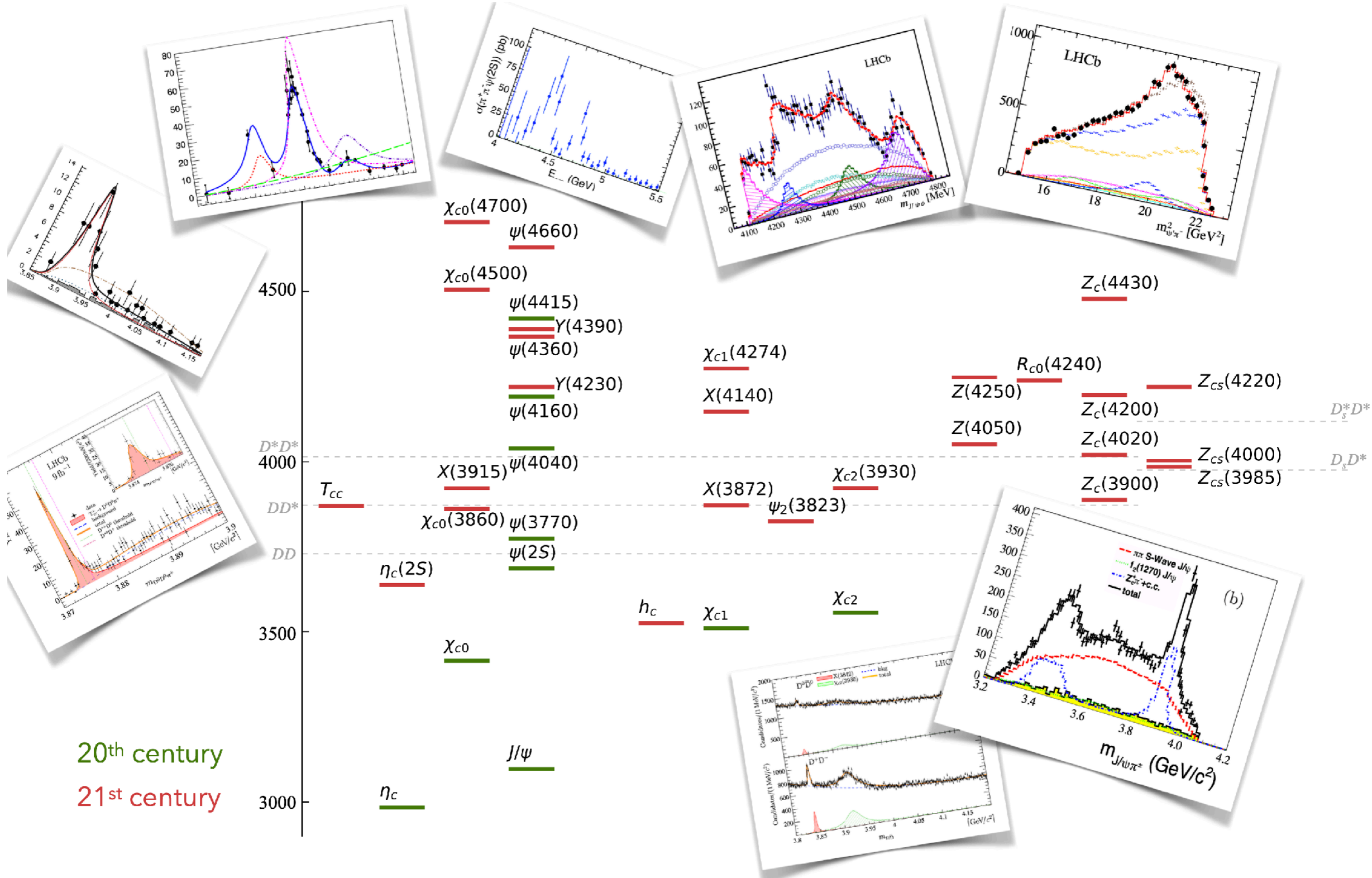


# Renewed motivation - the XYZ explosion - tetraquarks?



# New insights on a particle physics enigma

**JLab Highlight:**

[Lattice QCD method suggests a simpler spectrum of exotic “XYZ” hadrons](#)

[Cambridge & DAMTP Highlights](#)

**Editor’s Suggestion**

[Phys.Rev.Lett. 132, 241901 \(2024\)](#)

[Phys.Rev.D 109 \(2024\) 11, 114503](#)

Submitted as a DOE highlight

**Accomplishment:**

First charmonium spectrum calculation including all scattering channels, showing state counting is consistent with simple pictures.

**Methods:** Graph evaluation techniques developed in partnership with SciDAC RAPIDS

**Impact:** Suggests many charmonium states claimed by LHCb may not exist, and X(3872) may not be a tetraquark.

