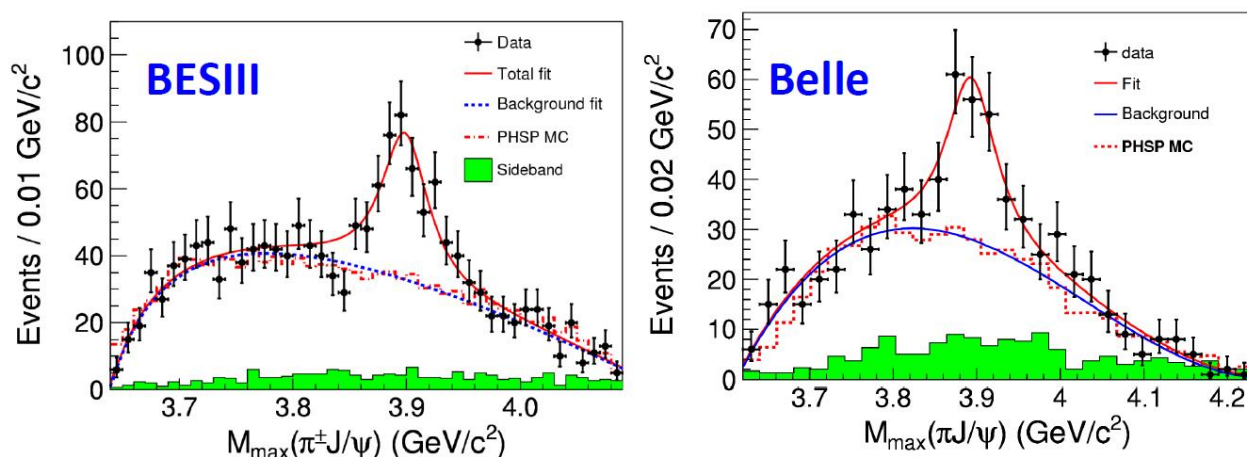




## XYZ – Exotic states in the charmonium and bottomonium mass regions.

Sören Lange (Univ. Giessen)

**Tuesday, 13 May 2014**  
**16:45 h, Auditorium**



Observations of new charmonium(-like) and bottomonium(-like) states (often referred to as “XYZ” states) at experiments at  $e^+e^-$  colliders such as BaBar, Belle, BESIII have changed our picture of quarkonia systems as QCD bound states. Potential models, which were able to predict many conventional states with an accuracy of  $\sim 1$  MeV, absolutely fail in describing many of the new states. Some of the new narrow states even seem to be charged, therefore cannot represent conventional quarkonium and may be discussed as states of possibly exotic nature (e.g. molecules, tetraquarks, hybrids). Recent results will be presented, with emphasis on the Belle experiment. At the end, an outlook to the future projects Belle II and Panda will be given.

- **Coffee, tea and cookies will be served at 16:30h**
- **After the seminar there is a chance for private discussions with the speaker over wine and pretzels**

