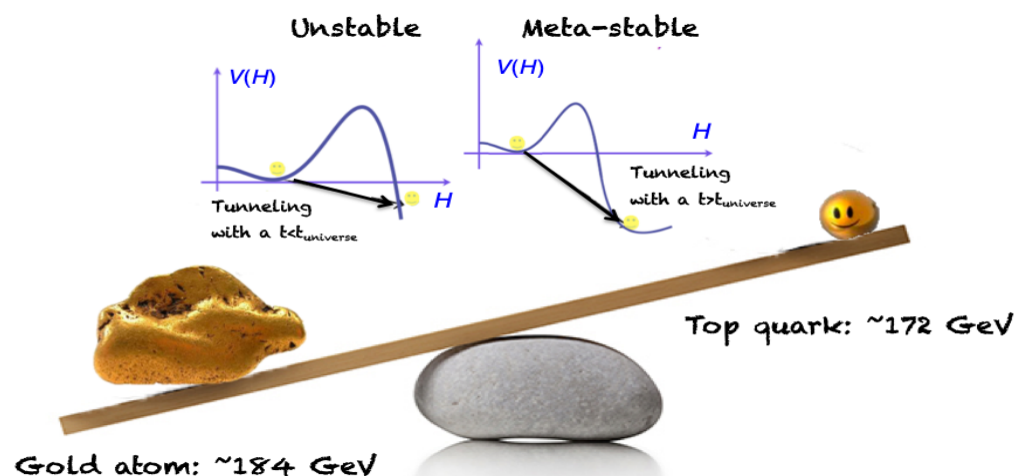


# The top quark is *beautiful*, pretty *charming* and still very *strange* (the *ups* and *downs* of the top mass).

**Tuesday, 09 July 2019, DESY Auditorium, 16:45 h**

**Juan Fuster (IFIC, University of Valencia-CSIC)**



The mass of elementary particles remains still as one of the open puzzles in Particle Physics covering a mass range over more than 12 orders of magnitude. This is approximately the difference between the size of the earth and a vegetal cell. A detailed understanding why neutrinos are so light or why the top quark is so heavy is still lacking. The exact determination of these mass values has direct impact on the validity of the Standard Model and its possible extensions. The accurate experimental measurement of these parameters is therefore of utmost importance. The present colloquium reviews the present situation of the top-quark mass and addresses its prospects for future measurements at the Large Hadron Collider and at new accelerators.

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