

# Shannon entropy and hadron decays

*Tuesday 26 September 2017 20:45 (15 minutes)*

How much information is added to the Review of Particle Physics when a new decay branching ratio of a hadron is measured and reported? This is quantifiable by Shannon's information entropy. It may be used at two levels, the distribution of decay-channel probabilities, and the distribution of individual quantum-state probabilities (integrating the later provides the former). We illustrate the concept with some examples.

**Authors:** LLANES-ESTRADA, Felipe J. (Univ. Complutense de Madrid); M. ÁNGELES GARCÍA FERRERO, ANA PORRAS, PEDRO CARRASCO MILLÁN, ESTEBAN MANUEL SÁNCHEZ GARCÍA

**Presenter:** LLANES-ESTRADA, Felipe J. (Univ. Complutense de Madrid)

**Session Classification:** Poster session

**Track Classification:** Spectroscopy of mesons