Homework n.6

The squared energy and momentum of a particle are independently measured:

$E^2 = 1010 \pm 17 \ eV^2$

$P^2 = 1064 \pm 25 \ eV^2$

Put an upper limit on the squared mass

$m^2 = E^2 - P^2$

of the particle using:
- The classical frequentist approach
- The unified approach (Feldman Cousins) with the mean of the Gaussian constrained to be non-negative
- The Bayesian approach (briefly comment the choice of the prior)