The LHC will not only collide proton beams: some periods of time will be spent colliding beams of nuclei, such as calcium (Ca) and lead (Pb). Collisions between these nuclei will produce “little bangs” at a temperature of ~ 200 MeV (around 100,000 times that of the centre of the sun), and an energy density up to 30 GeV/fm³ (200 times that of normal nuclear matter). Under these extreme conditions, which mimic those of the very early Universe ~ 10 μs after the Big Bang, the constituent protons, neutrons and gluons (the carriers of the inter-quark force) “melt” to form a “quark-gluon plasma (QGP)”. CMS is very well suited to study some aspects of the formation of the QGP through the detection of muons and jets.