

# Dear Monica, Dear Colleagues of CERN/TH Dear Friends and Family of Guido Altarelli



*I remember Guido as a gentle, competent, decisive and unassuming, world renowned scientist. There are few if any in the HEP theory community who rival Guido's accomplishments. Today I would like to point out the influence Guido had in helping the quark-gluon plasma field of research.*

**I believe that Guido made a decisive contribution to the advance and success of the quark-gluon plasma discovery at CERN. To document the case I will present my memory of two events, at the starting and at the finishing line.**

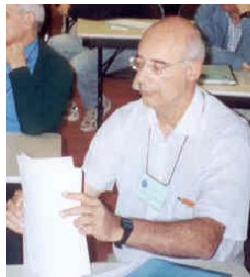
## Quark-gluon plasma on horizon

I first met Guido when we sat down to discuss the incipient heavy ion program and in particular the proposed Omega Spectrometer experiment, later numbered WA85, offering to measure strange anti-baryon production in heavy ion collisions. Guido was looking over the proposal for the CERN experimental committee – it must have been Fall 1986 or a few months later. This Omega-Spectrometer program became the key pillar of the quark-gluon plasma discovery announced in February 2000 at CERN. However, as we met, a similar proposal in an earlier review round around 1983/4 was shelved, primarily as I remember because the predicted high  $\bar{\Omega}$  and  $\bar{\Xi}$  QGP yield was not acceptable to reviewers; without it there would be no measurable outcome of the sole CERN originated heavy ion experimental effort.

Not surprisingly, when we met Guido wanted to understand if the prediction of strange anti baryon enhancement, later measured to be up to a factor 20, was really serious. As it happens in the months since the last review theory had been moving forward. Guido needed to learn about this, he asked strong, straightforward and highly appropriate questions and it was clear that he formed his own opinion as our cafeteria coffee table effort turned to a second cup. I later asked Guido how it was possible that the experimental committee with a fresh memory of its earlier decision reversed its path and he modestly responded (I paraphrase) . . . *being new on the committee I just supported the prevailing mood, I did not want to propose anything that the committee would not want to do.*

## The following 30 years

*We met quite often in the following 30 years. The last conversation rings loud in my memory. In Summer 2014 I was convincing colleagues at CERN-TH and elsewhere to contribute memories of Hagedorn's work and who would not be a better person to ask than the man who succeeded Hagedorn at CERN-TH and who was my friend. Guido presented a very different unexpected perspective:*



*“... how can you celebrate Hagedorn and quark-gluon plasma discovery in a field still seeking unity, where discoveries of one group are supplanted by another?” I took this lesson very seriously, as I had to agree on all points he advanced. We are today where we stand on the matter of quark-gluon plasma because Guido articulated the problem as always in a clear, penetrating and direct fashion.*



# Last memories

Photo: Maria Mercedes



*I did not know that this was the last time I could seek Guido's advice and assistance. We had in the following 10 months simpler conversations in private, and public, as witnessed for example by the memorable TH-Party photo taken in December 2014.*

**I wish he could know I took to heart all his advice and how much I miss his clear views today. Thank you. JAN**