Precision calculations for Drell-Yan processes, a theory discussion on the MW determination
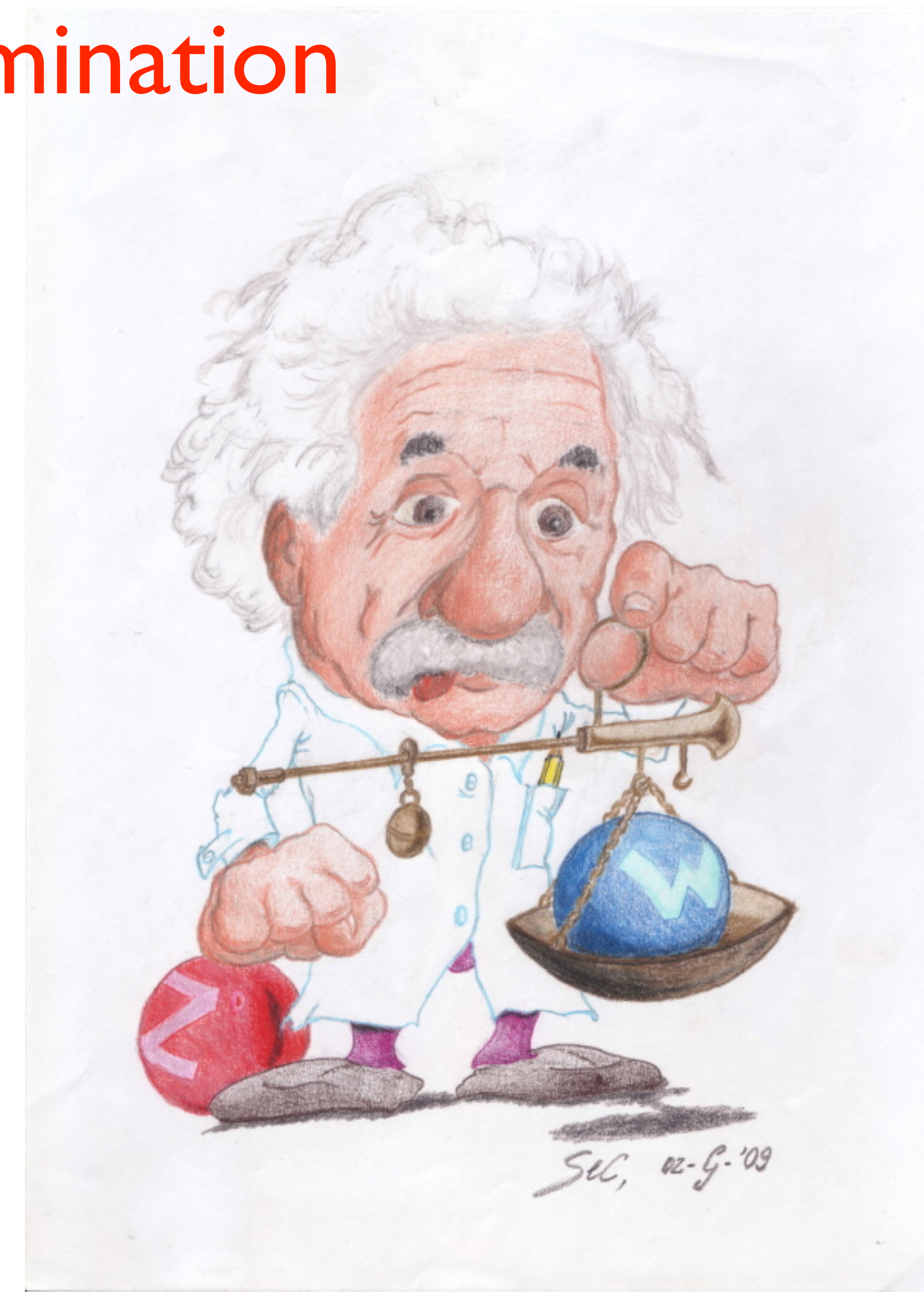
Università degli Studi di Milano

Milano, November 21st-22nd 2022

venue of the meeting: room V10, via Venezian 15
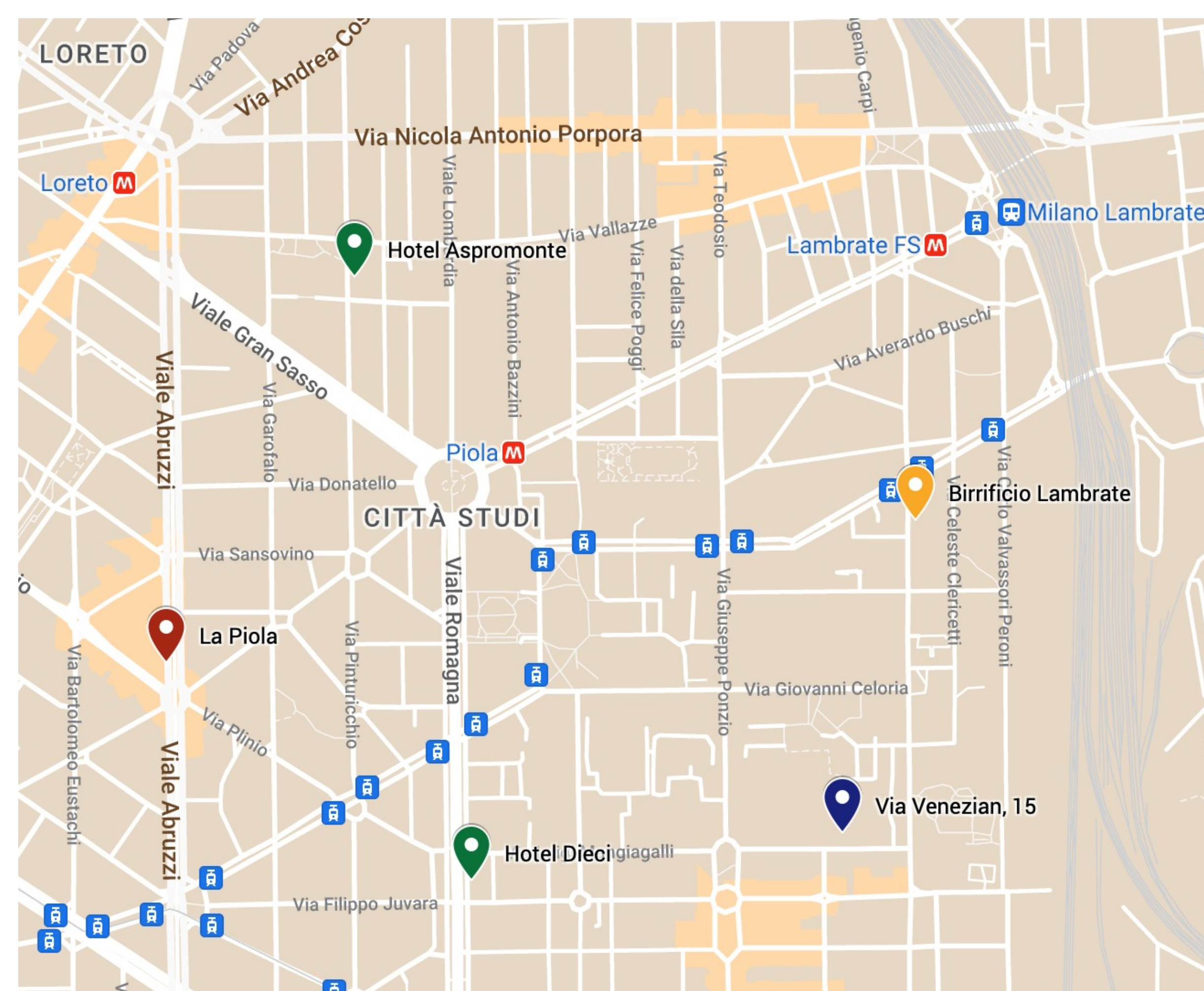"settore didattico" of the Chemistry Department

Schedule and logistics

https://indico.cern.ch/event/1194218/

The meeting takes place in room V10,
in the "Settore Didattico" of the Chemistry Department
entering from Via Venezian 15

(roughly 300m from the Physics Department)

Lunch on Monday at "Birrificio Lambrate, Via Camillo Golgi 60" https://goo.gl/maps/xSQZwRFsxoJX3jMa8
Dinner on Monday at "Osteria la Piola, Viale Abruzzi 23" https://goo.gl/maps/uFsfxyJDaFbFwkps6
Lunch on Tuesday self-organised

Program of the meeting   **https://indico.cern.ch/event/1194218/**

Monday   detailed review of the predictions of the kinematical distributions and their uncertainties

the interplay between fixed- and all-orders results, and with non-perturbative contributions
needs to be organised in a flexible way,
such that the uncertainty estimate is reliable and accurate

Tuesday   usage of the theoretical predictions in the data analysis
impact of the theoretical uncertainties on MW

the MW determination follows from a template-fit procedure
how are templates computed ?
how can we account for the uncertainties, in order to propagate them through the templates ?

is a purely theoretical analysis viable ? or, on the contrary, is a data-driven approach unavoidable ?
can the same analysis be applied to all the datasets collected at different experiments ?

The schedule is very flexible, we hope to trigger discussions to design new tests or approaches