

Semester Project of Giulio

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The Very Beginning

First things to learn:

- How to use GitHub
- How to use the PSI tier
- What `quantileregression.py` does.
- Learn the basics of `root`, `pandas` and `Scikit-Learn`.

Does it work?

Then I tried to see if I were able to do a training, plot the result and see the match. It didn't match really well. Next step was to add the weights and compare the result. Much better the training with the weights.

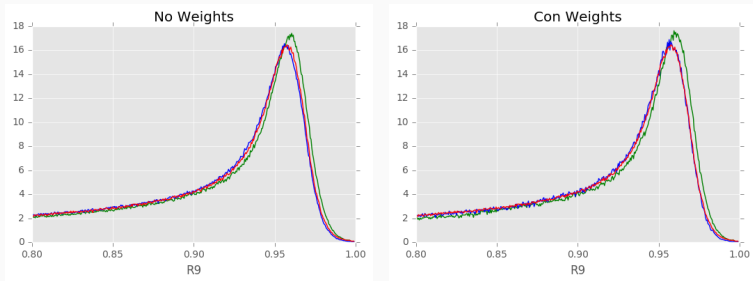


Figure 1: Comparison with and without weights

A little bit more precise

Next step: compute reasonable uncertainties and check profiles plots for differential match.

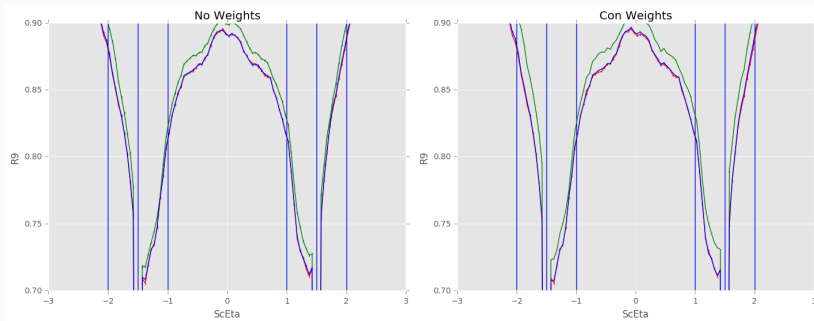


Figure 2: Comparison with and without weights

Some Analyses

Did some analyses:

- Train EB-EE separately or together? After analyses decided together
- compute the ratio $\rho_{\text{dati}}/\rho_{\text{mc}}$ and store it in the `dataFrame`.
- check the shift of R9 wrt time.
- create `Plotting.py` to store some useful functions to plot and analyses and clean code.

TODO now

Decide how to deal with the time shift, taking into account the PU of MonteCarlo's and different run periods of the data.