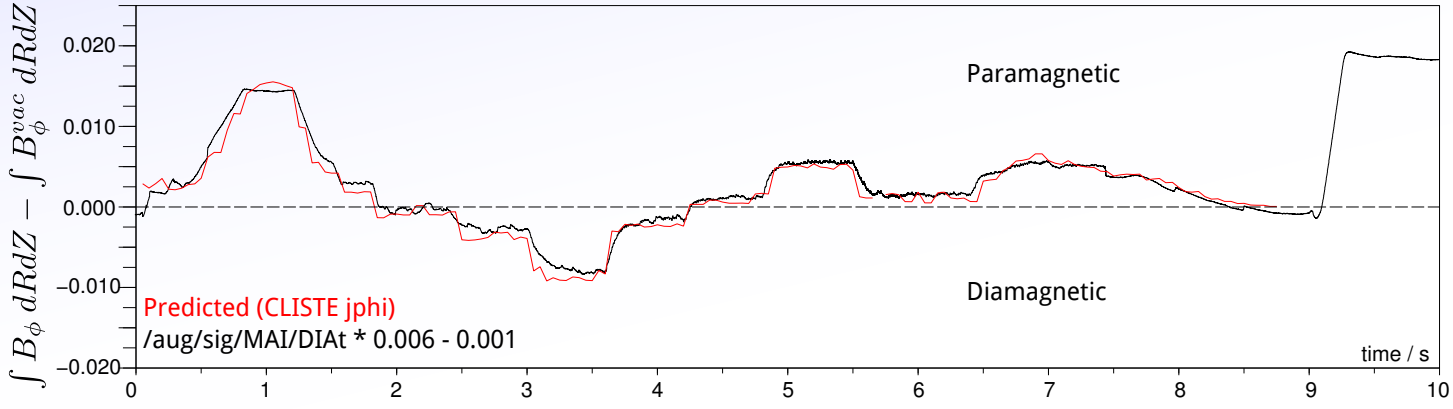
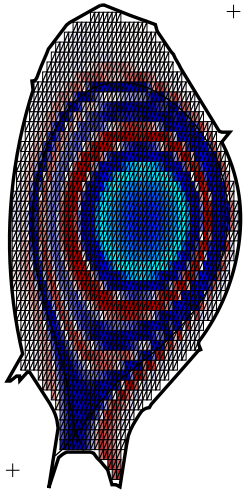
Para/Diamagnetics

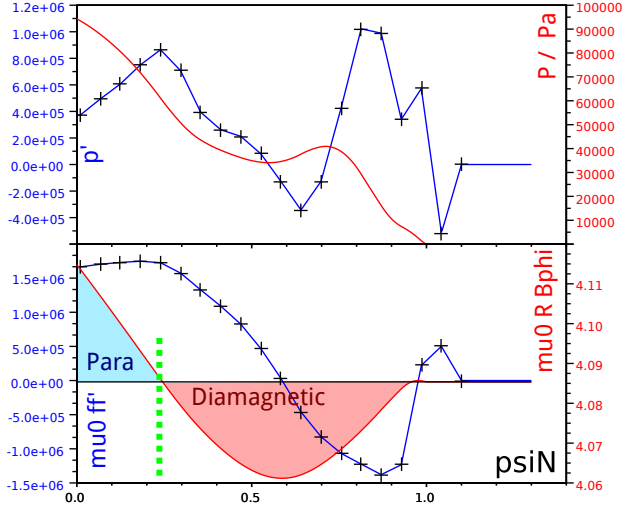
Some notes about Renee's results from the equilibrium point of view:

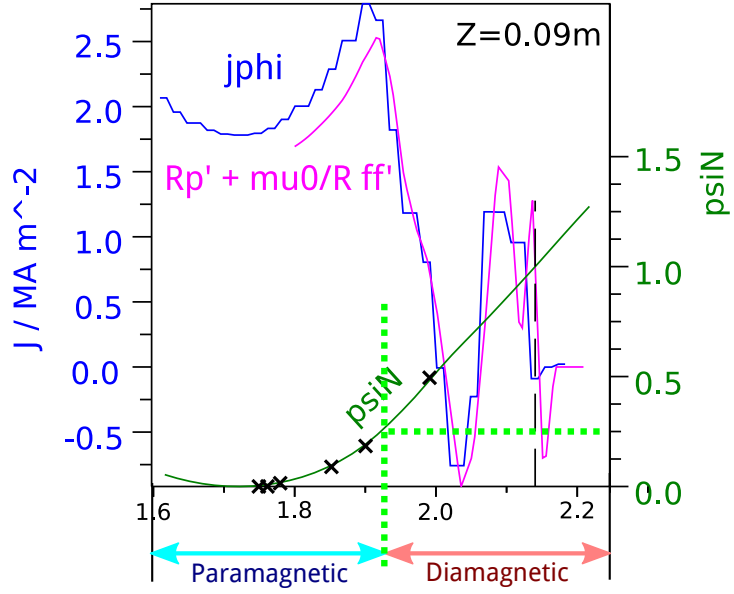
Just to see, we can load CLISTE's jphi into Minerva and integrate the toroidal flux over the whole vessel (calc. grid). There is a diagmagnetic signal outside the vessel which appears to be uncalibrated. With an offset and scale it mostly agrees with what CLISTE says:



Also, I can now run the code from my PhD work on JET which tries to extract the pedestal pressure from magnetics, wuth the AUG magnetic model. (P. McCarthy has already shown this works at AUG, as I did at JET). With sufficient relaxation of the ff' and p' smoothing priors, it actually finds an equilibrium which is paramagnetic in the very core and diamagnetic at the edge (albeit with a slightly silly pressure profile):







I'm not saying that this is happening, just that with a strong pedestal pressure gradient, it could be.