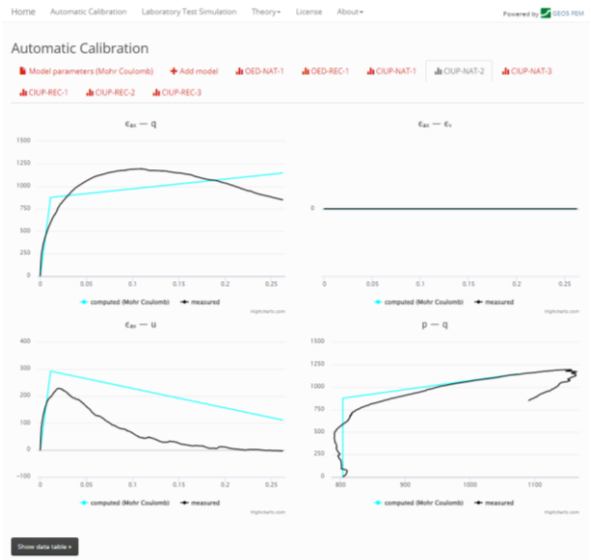
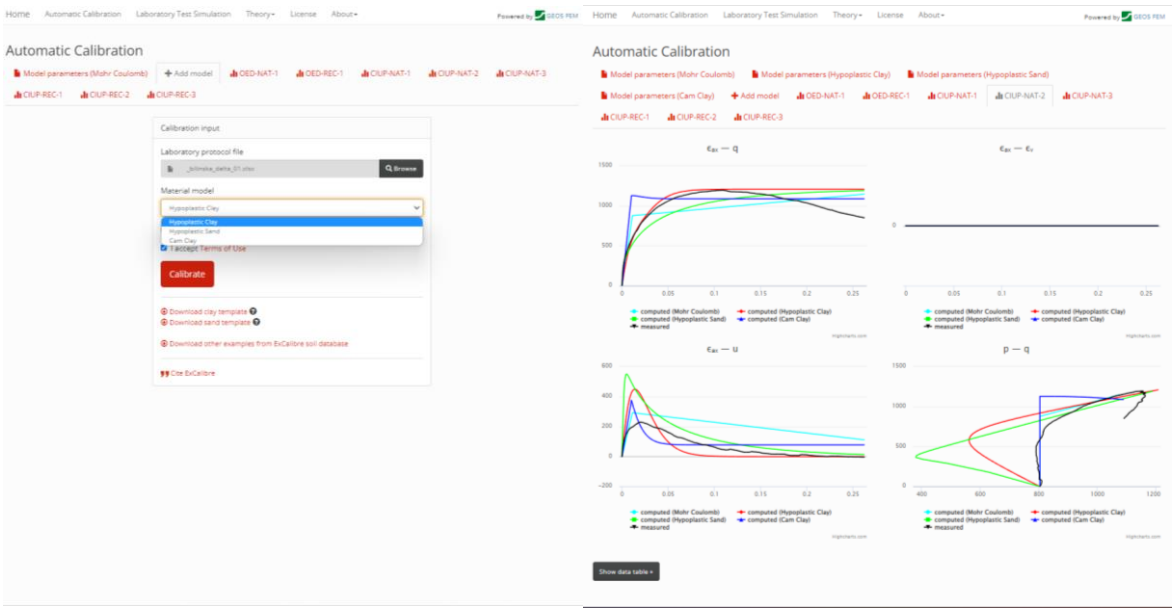
ExCalibre January 2023 release:

ExCalibre introduces three new features which boost its performance and provide you with more calibration options:

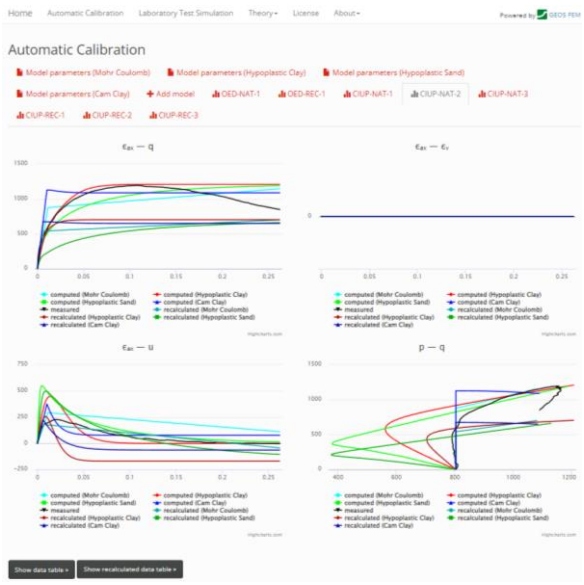
1) New calibration option of the Mohr-Coulomb model was added in to the group of already available constitutive models.



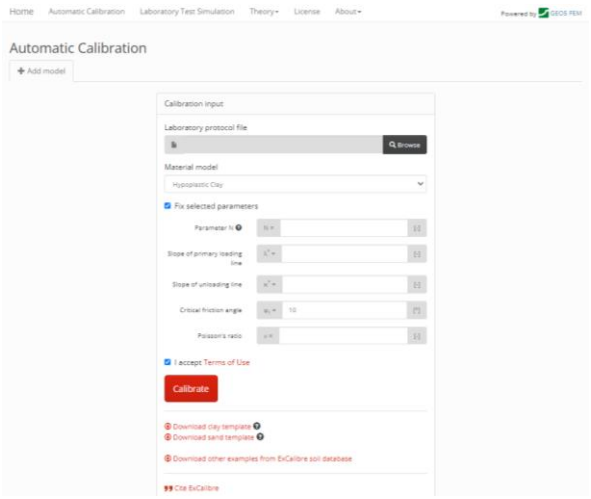

2) All the available constitute models can be now included in the calibration and the results can be compared against each other and against the input data.



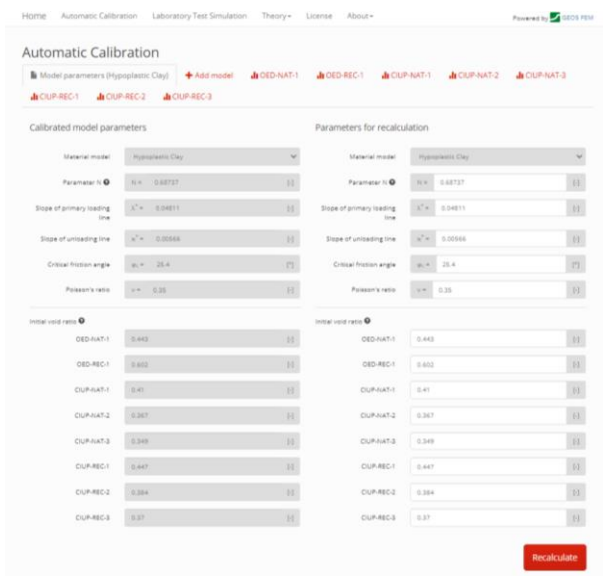
You can still modify the calibration results for each individual constitutive and inspect the results.




3) Some parameters can be often determined more precisely with experiments that are not available or considered in ExCalibre. Therefore, new option “Fix parameter” is now available in ExCalibre. Any parameter of any available constitutive model can be now fixed and the remaining parameters will be calibrated base on this preference.




Works on Excalibre are still undergoing and we plan to introduce more changes in the future.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Hypoplastic Clay
Parameter N
N =
0.68737
Slope of primary loading line
λ* =
0.04811
Slope of unloading line
κ* =
0.00566
Critical friction angle
φc =
25.4
Poisson's ratio
ν =
0.35
Initial void ratio
OED-NAT-1
0.443
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0.602
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CUP-NAT-3
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CUP-REC-1
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CUP-REC-2
0.384
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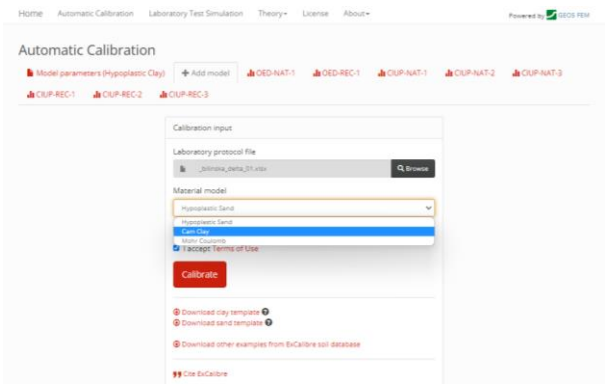
0.37
Recalculate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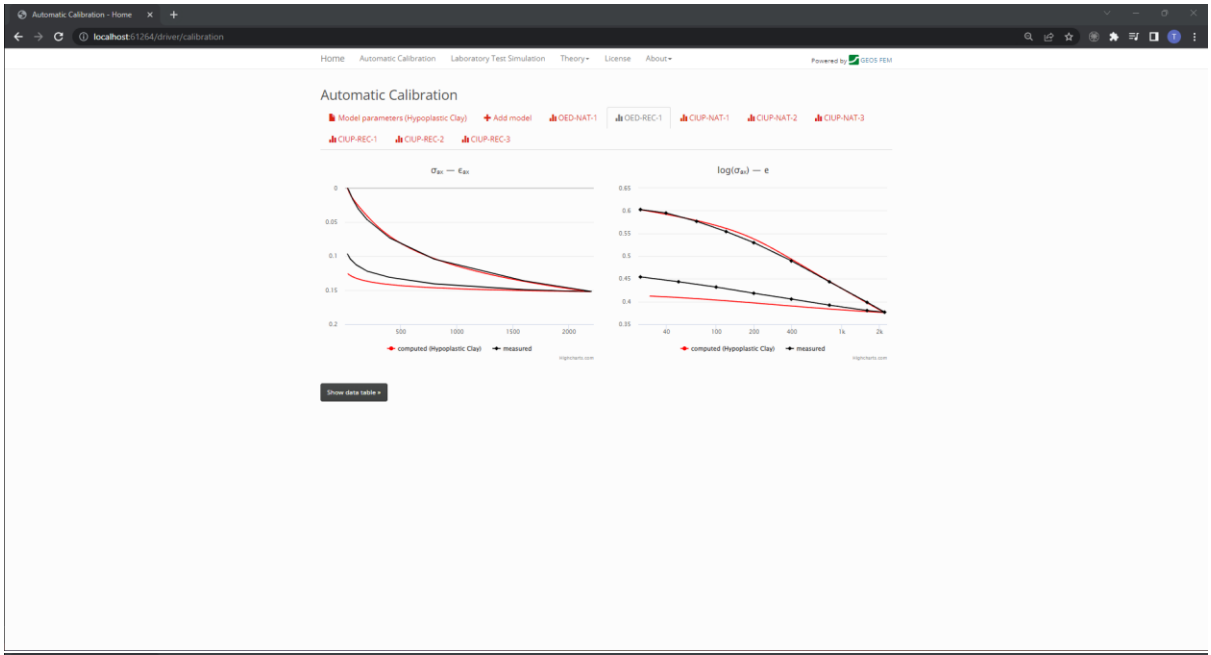
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σax — εax
log(σax) — e
computed (Hypoplastic Clay)
measured
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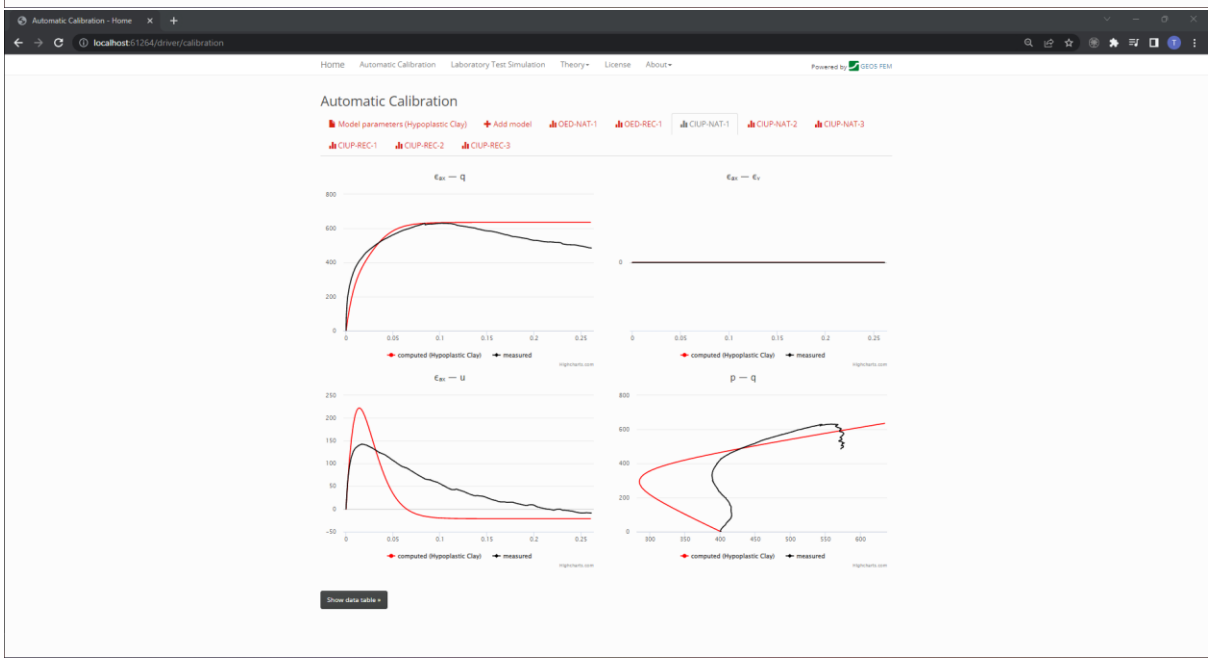
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εax — q
εax — εv
εax — u
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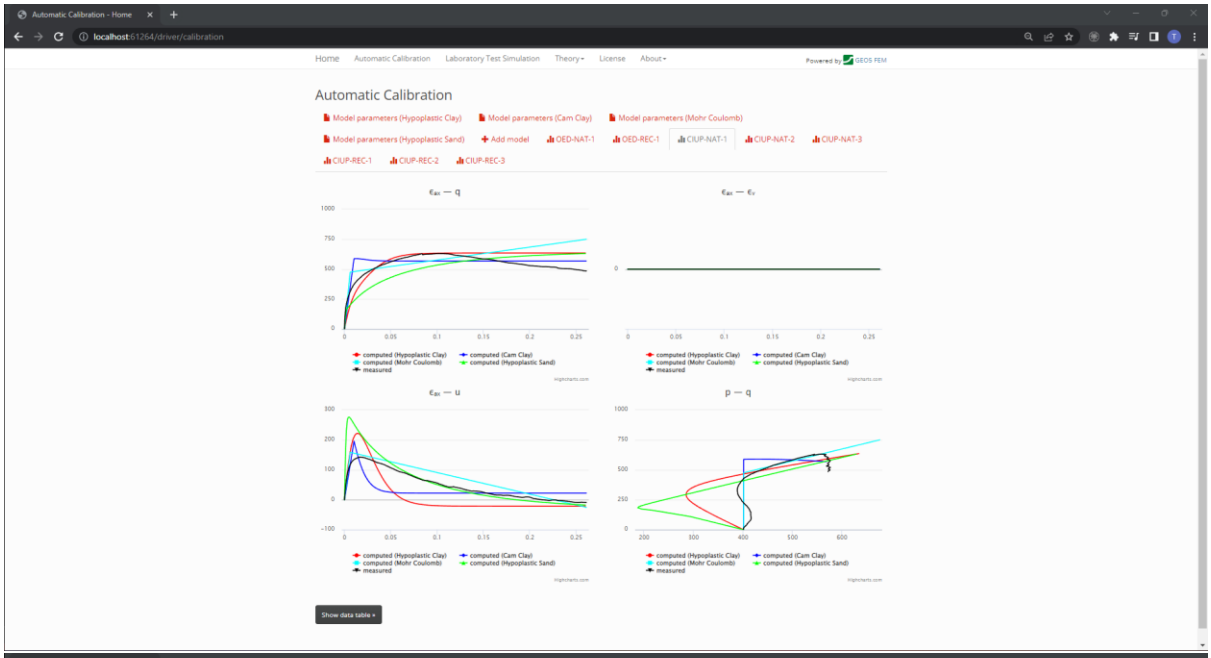
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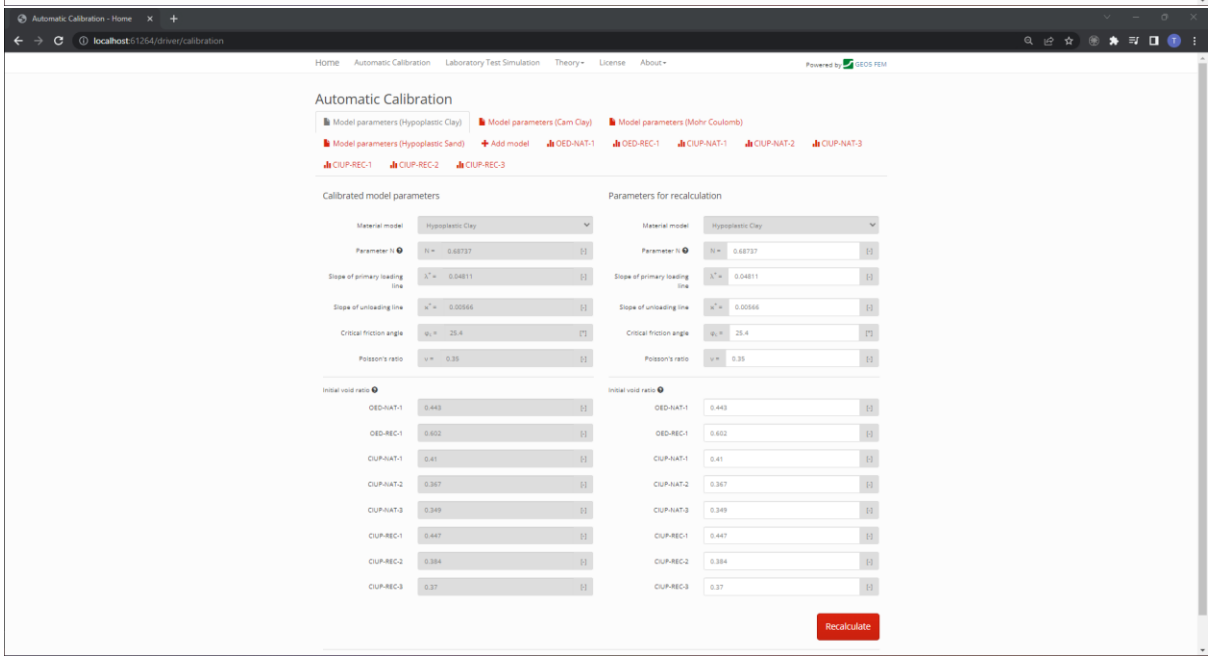
CIUP-REC-2
CIUP-REC-3
$\epsilon_{ax}$ — q
$\epsilon_{ax}$ — $\epsilon_v$
$\epsilon_{ax}$ — u
p — q
computed (Hypoplastic Clay)
computed (Cam Clay)
computed (Mohr Coulomb)
computed (Hypoplastic Sand)
measured
Show data table +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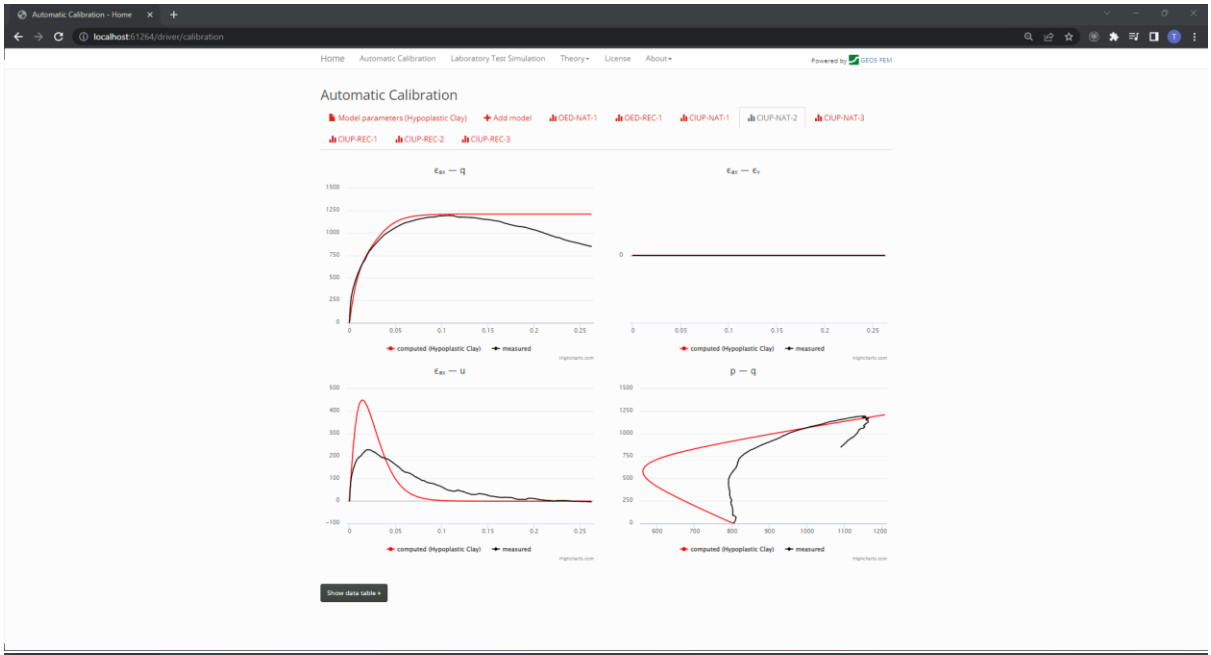
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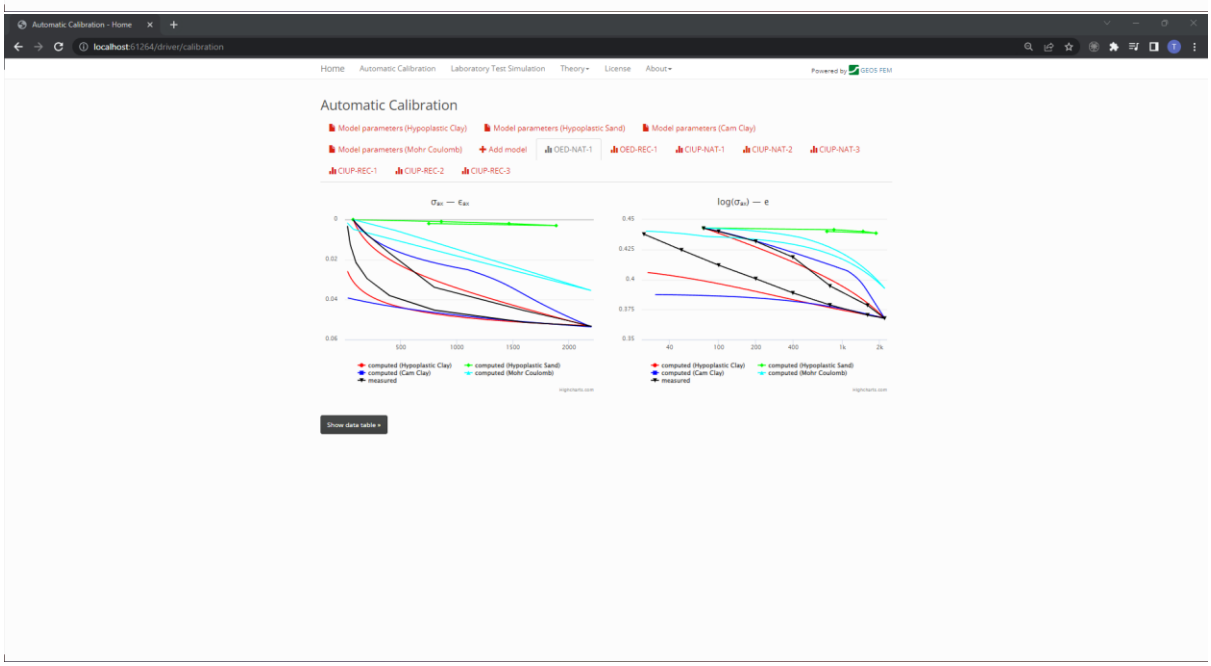
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