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Abstract

modeFRONTIER users meeting

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Due to the future worldwide emission regulations, the design of new engine sis a growing challenge for all car manufacturers. Especially the basic development is strongly attended by simulation.
For the design of modern powertrains with increasing complexity, novel simulation methods are applied. All simulation methods rely on a greater or lesser extend on parameters that have to be adapted to the particular application. Models like 1D combustion models, 0D emission models, 0D control unit models are utilized in the entire powertrain development.
At Daimler, a novel calibration methodology ‘’automated calibration’ has been developed during the last two years, that is flexible enough to be able to be applied to almost all arising tasks in very efficient way.
This methodology is going to be introduced and demonstrated exemplarily for a Diesel oxidation catalyst. Basic experimental requirements, calibration setup and optimization performance are described.