Bolehovský, O., Červenka, L., Tichánek, R.  
**PFI Simulation Model of Hydrogen ICE**  
[Software] 2023.

A simulation model of thermodynamics in a heavy-duty engine fueled by hydrogen. The 1-D CFD model contains port fuel injection of hydrogen into the intake manifold, spark ignition, a predictive combustion model, parameterized valve timing data, lift curves verified within the valve train model, and boosting by the one-stage turbocharger. The combustion model is calibrated against measured data to accurately predict the heat release rate of hydrogen depending on engine load and air-to-fuel ratio. The model correctly predicts the heat release rate of hydrogen after calibration, and it is suitable to simulate a complete engine map.

**Vlastník**

ČVUT / FS / centrum vozidel udržitelné mobility Josefa Božka (12201) IČO: 68407700 - Vysoká škola - Praha, Česká republika

Pro stažení modelů se obraťte na: radek.tichanek@fs.cvut.cz