### Derivation of a real-life driving cycle from fleet testing data with the Markov-Chain-Monte-Carlo Method

**Titel des Beitrags:** Derivation of a real-life driving cycle from fleet testing data with the Markov-Chain-Monte-Carlo Method

**Abstract:**

Future driving cycles are subject to a number of regulations and requirements. A vehicle's ability to meet the emission regulations under real-life conditions is based on a precise testing procedure. Additionally, intelligent vehicle design needs to be customer oriented. The requirements for an optimum drivetrain design have to be deviated from the customers’ driving behavior. Especially in the price sensitive long-haul business. In a new approach the Markov-Chain Method (MC) is applied to fleet testing data from the research project Truck2030. Two different transportation companies collected 95,279 km in long-haul traffic. The objective is to find a shortened driving cycle with the quality to represent the original fleet testing data. The designed MC is focused on topographic and dynamic information of the dataset. The results show a discrepancy below 1% in fuel consumption error between the original fleet testing data and the representative driving cycle.

**Stichworte:**

FTM Fahrzeugkonzepte