Johannes Kolb,
Karlsruhe Institute of Technology (KIT), D

Short biography
Dipl.-Ing. Johannes Kolb received the Dipl.-Ing. degree from the University of Karlsruhe (TH), Germany in 2007. Since that time he has been working as scientist at the Institute of Electrical Engineering which is located in the Karlsruhe Institute of Technology (KIT) to receive a PhD. His research interests are Electrical Drives and Power Electronics especially Multilevel converters and novel converter topologies.

Title of the Paper
A novel control scheme for low frequency operation of the Modular Multilevel Converter

Summary of the Paper
The contribution presents a control strategy for the Modular Multilevel Converter (MMC), which allows generating low frequency or even zero frequency three-phase output voltages. This feature is necessary to feed a three-phase machine at low frequency. The common mode voltage and correspondent inner currents are used to ensure a symmetrical energy distribution in the arms of the MMC and to avoid AC-currents in the DC-source.