

December 9th

Session	Pre chamber III <i>M. Sens</i>
09:00	Development of Active Pre-chamber with Mixture Injection System for Diluted Gasoline Engine <i>Sho Tomita, TOYOTA GAZOO Racing Europe GmbH</i> <i>Co-authors: Yann Drouvin, Michael Günther, Mario Medicke, Ronny Trettin</i>
09:30	Experimental and numerical investigation of different pre-chamber spark plug designs in a four-cylinder TSI engine <i>Metin Korkmaz, Federal-Mogul Ignition GmbH, A Tenneco Group Company</i> <i>Co-authors: P. Janas, Federal-Mogul Ignition GmbH; K. Michels, VW AG</i>
10:00	Numerical and experimental analysis of the heat transfer inside a passive pre-chamber spark plug <i>Dr. Peter Janas, Federal-Mogul Ignition GmbH, A Tenneco Group Company</i>
10:30	Coffee break
Session	Knock recognition <i>M. Biehl</i>
11:00	Holistic knock detection and control as the key to optimum ignition timing <i>Marc Benzinger, Robert Bosch GmbH</i> <i>Co-author: Matthias Biehl</i>
11:30	Knock Probability Prediction and its Potential for a Knock Control Application <i>M.Sc. Nicolas Fajt, IFS – Institut für Fahrzeugtechnik, Universität Stuttgart</i> <i>Co-authors: M. Grill, M. Bargende</i>
12:00	Misfire and Knock Detection of the Gasoline Engine Based on Ion Current in the Passive Pre-chamber <i>WANG Jinqiu, TONGJI UNIVERSITY</i> <i>Co-authors: SHI Jiaye, MIAO Xinke, DENG Jun, LI Liguang</i>
12:30	Lunch break
Session	Hydrogen <i>Dr. M. Fischer Tenneco</i>
13:30	Evaluation of the lean limit extension provided by H ₂ direct injection inside the prechamber of a gasoline TJI engine by mean of detailed CFD simulations. <i>Leonardo Pulga, NAIS s.r.l.</i> <i>Co-authors: Claudio Forte, Michela Fabbri, Marco Costa, Alfio Siliato, Gian Marco Bianchi</i>

14:00	Abnormal combustion phenomena of hydrogen fueled internal combustion engines with direct injection <i>M.Sc. Marcus Fischer, Institute for Combustion Engines VKA, RWTH Aachen University</i> <i>Co-authors: Dr. Marco Günther, Dr. Jörg Seibel, Dr. Ulrich Kramer</i>
14:30	Coffee break
Session	Ignition combustion process <i>M. Günther</i>
15:00	Plasma to early flame kernel transition under Nanosecond Repetitively Pulsed Discharge in an Optical Accessible Prechamber <i>Michelangelo Balmelli, Empa Swiss Federal Laboratories for Materials Science and Technology</i> <i>Co-author: Laura Merotto</i>
15:30	An Investigation of Multiple Spark Discharge Strategy using 48V Ignition System for Lean SI Operation with Strong Tumble Flow <i>Dongwon Jung, Hyundai Motor Company</i> <i>Co-authors: Kiseon Sim, Jinyoung Jung, Wongyu Kim, Yousang Son, Kiyoungh Kweon, Youngnam Kim</i>
16:00	Closing words & farewell