

# Measurement of highest static torques of up to 1 MNm – a metrological view

**Speaker: Dirk Röske, PTB Braunschweig**

In the last few years an increasing demand for the measurement of highest torques can be observed in some key applications. These are mainly related to the fields of power generation and the protection of the environment. The use of wind energy or the improvement of gas turbines, but also the reduction of the amount of exhaust gases emitted by diesel engines in ships, are some examples. About one decade ago the PTB as national metrology institute of Germany has developed and is operating now the only torque calibration machine worldwide with a capacity of 1 MNm. The tutorial starts with a general overview of torque calibration and measurement. It deals then with the basic concepts of the 1 MNm machine, its realization and metrological characteristics.

**About the speaker:** Dr. Dirk Röske graduated as Physicist in 1987 at Odessa State University (Ukraine), and received his PhD degree in 1999 from Technical University Braunschweig (Germany). He is working in the field of force and torque metrology since nearly 25 years. Since 2007, Dr. Röske is head of the torque working group of Physikalisch-Technische Bundesanstalt (PTB) in Braunschweig.