

Vehicle and Traffic Safety, Driver Behaviour



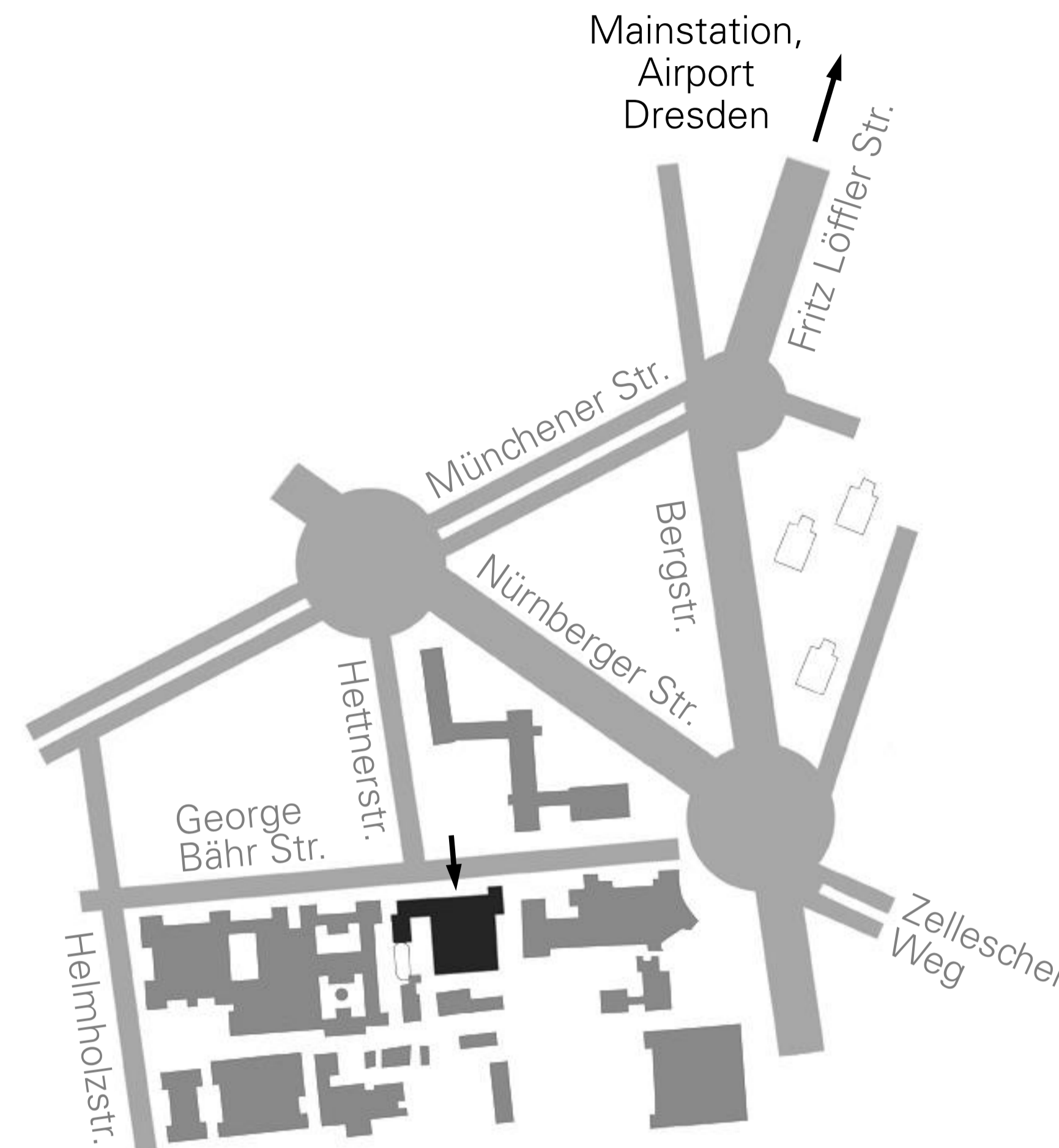
Driving Dynamics, Driving Comfort, and Tire



Lightweight, Materials and Aging Processes



Structural Durability and Noise-Vibration-Harshness



# AMFD

Auto Mobil Forschung Dresden GmbH



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Technische Universität Dresden

One of strongest universities in research all over Germany, founded in 1882.

Institute for Automotive Technologies Dresden - IAD

Delivers the scientific base in vehicle technology as part of the TU Dresden.

The AMFD – Auto Mobil Forschung Dresden GmbH

Was founded in 2011 for practical implementation in industrially applicable development tools and product solutions.



AMFD – Auto Mobil Forschung Dresden GmbH

Is a transfer company of the Institute for Automotive Technologies Dresden - IAD der TU Dresden.

Allows you the practical access to the vehicle technical expertise of the TU Dresden.

## Total vehicle

- Measurements on kinematics and compliance;
- Parameterization and validation of simulation models;
- Determination of replacement spring rate and friction analysis on the complete vehicle and vehicle axles;
- Determination of mass and inertial properties;
- Determination of the center of gravity;
- Subjective and objective vehicle evaluation.

## Subsystems und components

- Tire measurements for driving dynamics, comfort, rolling resistance, acoustics, uniformity;
- Tire measurements for tire modeling;
- Characteristic determination for elastomeric bearings, shock absorbers, tires and elastomers;
- Load data determination and lifetime test;
- Brake testing and friction pairing analysis;
- Axle behavior under operating load influence;
- Degradation analysis and evaluation of chassis components.

## Mobil measurement technology

- Driving tests in accordance with DIN ISO e.g.:
  - Steady-state circle-course driving (DIN ISO 4138),
  - Steering angle jump according to DIN ISO 740,
  - Braking from steady-state circle-course driving according to DIN ISO 7975,
  - Simple lane change according to DIN ISO 3888-2,
  - Double lane change according to DIN ISO 3888,
  - Sinus steering according to DIN ISO 14791,
  - Braking from straight drive according to DIN ISO 70028.



## Drivers behavior and traffic safety

- Development of driver models in active safety;
- Analysis of driver behavior;
- Determining the needs of assistance functions;
- Assessment of driver assistance systems;
- Verification of AEB systems (Autonomous Emergency Braking) according Euro NCAP;
- Conceptual development and assessment to increase traffic safety and efficiency;
- Evaluation of system functionality in simulation and experiment.

## Methods and product solutions

- Development and optimization of processes and methods in all four fields of know-how;
- Preparation of tender documents
- Literature and patent research
- Product strategy and market-related evaluation;
- Competition analyzes and target customer surveys;
- Process design and method development according to customer requirements;
- Design of new test facilities, development of new test equipment.