

## **THE INFLUENCE OF AERODYNAMICS FORCES ON THE STEERING CHARACTERISTICS OF THE CAR CASE STUDY AGH RACING RACE CAR**

**HANNA FARON, WOJCIECH MARCINKOWSKI, WŁADYSŁAW HAMIGA & DANIEL PRUSAK**

Faculty of Mechanical Engineering and Robotics, AGH University of Science and Technology,  
Al. Mickiewicza, Cracow, Poland

### **ABSTRACT**

At high speed, which is developed during the races, the ability to control the movement of the vehicle determines the winner. In order to obtain improvement, by use of the series of activities aimed at interference with the air flow, there was a tendency to provide increased downforce. As for the verification of the drivability and to simulate the behavior of the car on the track, during design phase the analysis was carried out by use of characteristics such as cornering stiffness, steer angle, understeer gradient, yaw and characteristic velocity.

**KEYWORDS:** Aerodynamics, Steering, Understeer, Oversteer, Neutralsteer