

**Influence of the Leveling Valve on Vehicle Dynamics
at Low Speed on a Sharp Curve**

Kazuyuki SHIMOZAWA

Two types of leveling valves, with time lag and with throttled air flow, have prevailed for the air spring system in Japan. When investigating the dynamics of vehicle on curve, for the former, the time lag has treated as the first order lag mechanism, but for the latter nobody investigated the dynamics of vehicle on curve using these characteristics. Therefore, we created dynamic models of two types of leveling valves. This paper reports on the result of comparative study regarding the influence of the characteristic on the dynamics of vehicle using two models of leveling valves.