

Foreword

Vehicle Dynamics Like Yo-Yo Ma's "Libertango"

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It is no doubt that excellent vehicle dynamics leads to victory in the world of motor sports. Even if we had a very high performance engine in a race car, there would be no chance of winning if that car did not have good controllability and stability. I greatly admire the dynamics of a racecar.

Although my job is in the field of engine development, I am merely an ordinary driver. So, I can't draw on my experience to describe the different levels of vehicle dynamics. If, however, I experience a car taking a corner slightly faster than normal, I would worry about the car leaving the lane. Each vehicle behaves differently in this kind of situation. Furthermore, some vehicles suffer from steering instability while being driven on the highway. These vehicles would be evaluated to have poor dynamic performance.

This special issue concentrates on vehicle dynamics. There has been much progress in the modeling and analysis of vehicle dynamics, as well as the related control methods. These technologies will lead to substantial improvements that will make vehicle control better than ever before.

I like to listen to music, one of my favorites being a tango by Yo-Yo Ma, one of the most famous cellists playing today. His "Libertango" is particularly popular in Japan, having been used in a TV commercial. Ma's cello picks out melodies while being backed up by rhythms played sharply by "Bandneon". The music is evocative of a car being maneuvered elegantly and turning sharply. I'll go as far as to say that a car with great dynamics is akin to Yo-Yo Ma playing tango music.