Workshop: Strategies for Data Science and Data Management



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Data Science and Management in Virtual Product Development

Numerical simulations of car crashes are a key component of the virtual product research and development process in the automotive industry. In recent decades, virtual crash tests of vehicles on the computer, using commercial simulation software, supplemented the costly physical testing-only option. Nowadays, virtual crash tests outnumber their physical counterparts during the development of new cars by orders of magnitude. OEMs typically perform more than 10,000 car crash simulations per week.

We illustrate strategies to incorporate modern data analysis procedures into the virtual product development process of the automotive industry. Research on suitable machine learning approaches for this task takes place at the Institute for Numerical Simulaton and Fraunhofer SCAI.

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