

# CFD Knocks the Knock

"When fuel improperly ignites, it interferes with the engine's cycles, causes damage to components and impacts the vehicle's performance," said Bernie Rosenthal CEO of Reaction Design ([reactiondesign.com](http://reactiondesign.com)), a developer of FORTÉ, a computational fluid dynamics (CFD) package that has particular application to internal combustion engines. This improper ignition—a.k.a. "knock"—is now being addressed in FORTÉ through the use of a solver that the company has added to the CFD package. They're using a multi-component gasoline fuel model—including hundreds of chemical species and their corresponding kinetic reactions—rather than a reduced fuel chemistry model, thereby providing a level of reliable modeling otherwise not readily attainable. ■

