

# Designing with Aerodynamics

Dr. Paul J. Stewart – Exa Corporation



Applying aerodynamics in the automotive design studio is a challenging task. Explaining to a designer that they need to change their shape and correct their design rarely meets with success. However, seeing aerodynamics from the designers point of view can lead to an effective partnership. This discussion will share some of Exa's experiences bringing studio and engineering design together as well as key aspects of Exa's free-form shape optimization process and the importance of aerodynamic details to overall design process success.