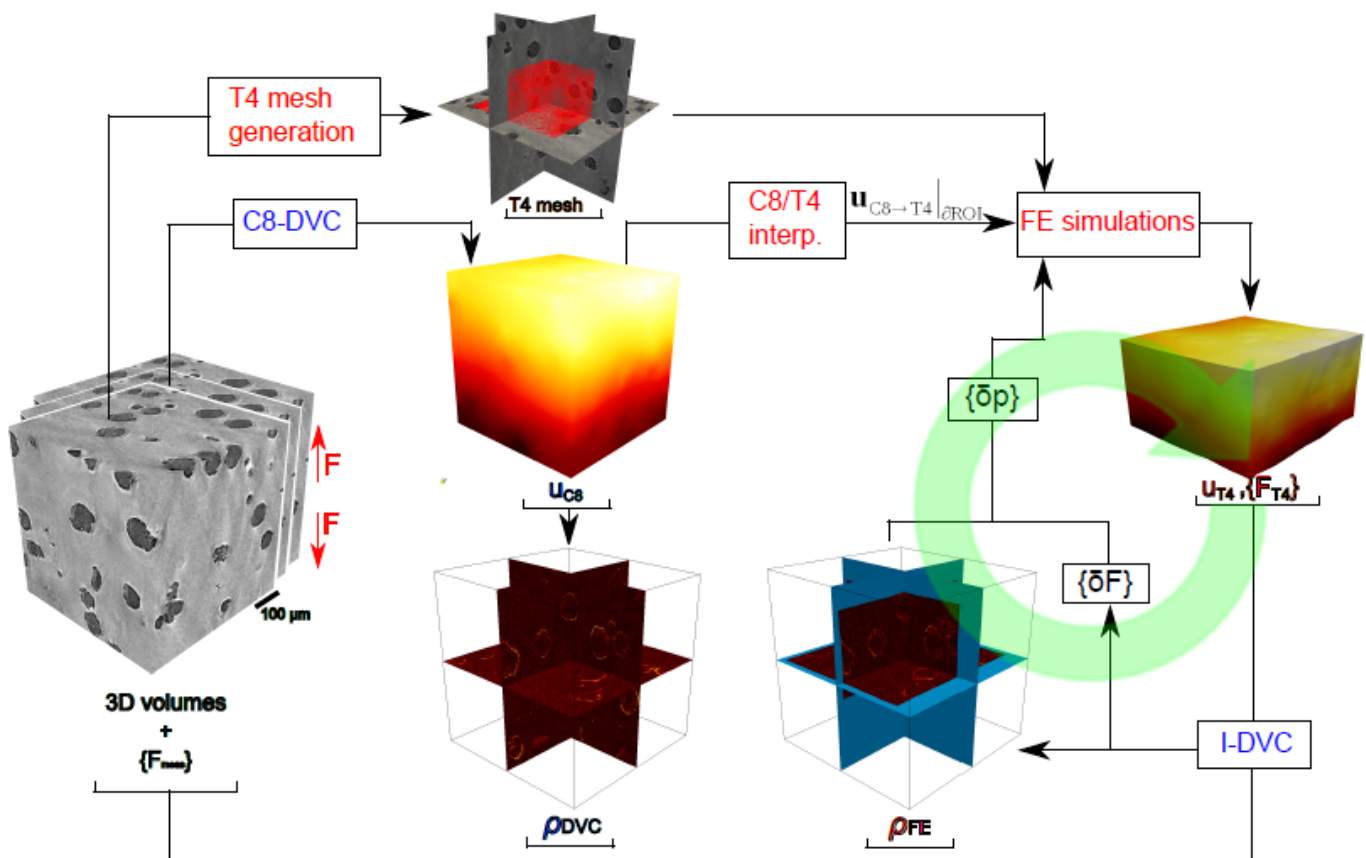


Overview of image correlation: Applications to various materials

François HILD

Eikology team, Laboratoire de Mécanique et Technologie
ENS Paris-Saclay / CNRS / Université Paris-Saclay

The presentation aims at discussing various applications of image correlation techniques that enable 2D displacement, 3D surface displacement and 3D bulk displacement fields to be measured. The general principles of local and global registrations will be introduced, and their possible links with numerical simulations will be analyzed. Various examples dealing with damage and fracture of refractory castables, the welding / brazing process of an automotive roof, and the prediction of ductile damage in nodular graphite cast iron (see figure).



Schematic representation of procedures that can be used for validation and identification purposes of numerical simulations at the microscopic scale using 3D images

Local: Auditório do CETEPE. Centro de Tecnologia Educacional para Engenharia
Av. Trab. São Carlense, 400 - Parque Arnold Schmidt, São Carlos - SP

Data: 21/02 às 9h00

Maiores informações: Ricardo Afonso Angélico
E: raa@sc.usp.br | T: (16) 3373-8351
Departamento de Engenharia Aeronáutica

