

APPENDIX E

Friction Stir Welding
given by

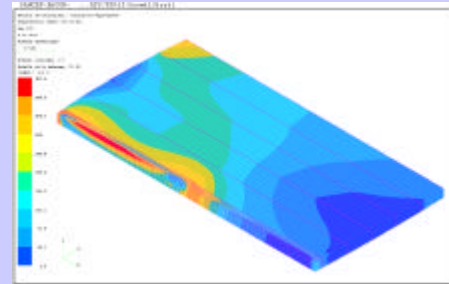
T. Khan

Thermo-mechanical modelling of Friction Stir Welding



Objective :

- ◆ optimization of welding conditions
- ◆ prediction of the heat-induced degradation of microstructure
- ◆ estimation of residual stresses



Snapshot of the equivalent stress field during FS welding (ONERA)

combining : **numerical modelling and validation**

through fully instrumented experiments

ONERA

Thermo-mechanical modelling of Friction Stir Welding



New elements to be taken into account :

- ◆ participation of Imperial College (UK)
- ◆ FSW benchmark work of U. of Cambridge (UK)

Proposed deadline for Action Group programme :

September 2003

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