

Wednesday May 14 – 8:40 → 10:20

Mechanical Behavior I: Fatigue

Chairmen : E. Andrieu & M. Stockinger

8:40 - Low Cycle Fatigue Behavior and Microstructure Evolution of the Fine-Grained Alloy 718

Shamil Mukhtarov

Institute for Metals Superplasticity Problems RAS, Ufa, RU

9:00 - Toward a Better Understanding of Strain Incompatibilities at Grain Boundaries in the Analysis of Fatigue Crack Initiation at Low Temperature in the Udimet 720Li Superalloy

Baptiste Larrouy¹, Patrick Villechaise¹, Jonathan Cormier¹, Olivier Berteaux²

¹Institut Prime Poitiers, FR, ²Turbomeca – SAFRAN Group, Bordes, FR

9:20 - The Effect of Minimum Dwell Cycling on the Environmental and Fatigue Response of RR1000

James O'Hanlon¹, Mark Hardy², Ben Foss³, Martin Bache¹

¹Swansea University, Swansea, GB, ²Rolls-Royce plc, Derby, GB, ³Imperial College, London, GB

9:40 - Oxide-Assisted Crack Growth in Hold-Time Low-Cycle-Fatigue of Single-Crystal Superalloys

Akane Suzuki¹, Gao Yan¹, Don Lipkin¹, Anjali Singhal¹, Matthew Krug², Douglas Konitzer², Jonathan Almer³, Tresa Pollock⁴, Bernard Bewlay¹

¹GE Global Research, Niskayuna, NY, USA, ²GE Aviation, Cincinnati, USA, ³Argonne National Laboratory, Argonne, USA, ⁴University of California Santa Barbara, Santa Barbara, USA

10:00 - Hold-Time Low Cycle Fatigue of Single Crystal Superalloys: a Review

Wei-Jun Zhang

GE Aviation, Cincinnati, USA

