

## **Preliminary list of the invited talks**

### **Overview on TBC/EBC application, industrial perspective**

Ceramic layers in aero-engines: adding complexity to reach the thermal limits of materials  
Dan Roth-Fagaraseanu/ Rolls-Royce Deutschland

Suspension Plasma Spray TBCs  
Brian Hazel/ Pratt & Whitney, East Hartford

### **Bondcoat Development and Oxidation Behaviour**

Oxidation and Interdiffusion in MCrAlY-type Bondcoats and the Correlation with TBC Life  
D. Naumenko, A. Jalowicka, R. Pillai, R. Herzog, M. Ernsberger, W.J. Quadackers/  
Forschungszentrum Jülich GmbH

Performance of APS TBCs for land-based applications  
Bruce A. Pint/ Oak Ridge National Laboratory, Oak Ridge

Development of bond coats for extending lifetime of TBCs  
Ping Xiao/ University of Manchester

### **TBC development**

(Axial) SPS of TBCs (most probably about microstructure effect on coatings properties/performances)  
Nicolaie Markocsan/ University West, Trollhättan

Microstructure development for plasma spray ceramic coating of low thermal conductivity with high sintering resistance  
Chang-Jiu Li, Jiaotong University, Xi'an

Multifunctional Thermal Barrier Coatings Enabled by Layered Manufacturing  
Sanjay Sampath/ Stony Brook University, NY

Thermal Barrier Coatings on Polymer Materials  
Xueqiang Cao/ Wuhan University of Technology

PS-PVD thermal/environmental barrier coatings with novel microstructures  
Guo Hongbo/ Beihang University, Beijing

TBC research activities in NIMS  
Hideyuki Murakami, NIMS

Hot Corrosion Degradation of Marine Gas Turbine Materials Subject to Mixed-Mode Thermal Exposures and Complex Corrosion Environments  
Daniel R. Mumm, University of California, Irvine

Temperature memory paints and coatings for gas turbine applications  
Jörg Feist, Sensorcoatings, UK

### **CMAS – Failure and Mitigation Strategies**

Fundamentals of CMAS-T/EBC interactions and mitigation approaches,  
Carlos G. Levi/ University of California, Santa Barbara

Lifetime of various EB-PVD and APS TBCs under attack by deposits – influence of temperature gradients, TBC microstructure and stresses

Uwe Schulz, DLR

Understanding CMAS degradation of thermal/environmental barrier coatings  
David Poerschke/ University of California, Santa Barbara

Development of new TBCs resistant to a variety of CMAS and volcanic ashes – experiments and infiltration simulation  
Ravisankar Naraparaju, DLR

CMAS resistant Suspension plasma sprayed coatings by tailoring feedstock powders and spraying conditions,  
Odile Lavigne/ ONERA DMSM/MAT, France

### **Failure Mechanisms**

Thermally Sprayed Protective Coatings under Demanding Load Conditions  
Daniel Emil Mack/ Forschungszentrum Jülich GmbH

Virtual Simulations of Barrier Coating Durability  
Matthew R. Begley/ University of California, Santa Barbara

Development of High Toughness, CMAS Resistant Turbine Airfoil Environmental Barrier Coating Systems for Ceramic Matrix Composite Components  
Matthias Oechsner / Technische Universität Darmstadt

NDT&E of TBC systems  
Federico Maria Cernuschi/ RSE SpA, Milano

### **Environmental Barrier Coatings**

Development of Advanced Environmental Barrier Coatings for SiC/SiC Ceramic Matrix Composite Turbine Engine Components: Progress, Challenges and Future Prospects  
Dongming Zhu/ NASA Glenn Research Center

EBCs and CMAS  
Nitin P. Padture / Brown University, Providence

Failure mode control in T-EBC systems  
Haydn N. Wadley/ University of Virginia, Charlottesville

Microstructural evolution of Environmental Barrier Coatings in High Temperature Steam  
Elizabeth J. Opila/ University of Virginia, Charlottesville

New ceramics for high-temperature protective coatings of CMCs  
Emine Bakan/ Forschungszentrum Jülich GmbH