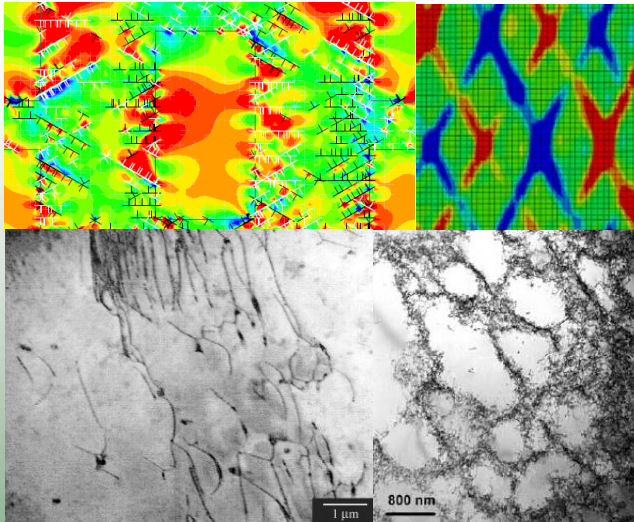


3rd INTERNATIONAL WORKSHOP ON PHYSICS BASED MATERIAL MODELS AND EXPERI- MENTAL OBSERVATIONS

2-4 JUNE, 2014, Çeşme/Izmir - TURKEY

WORKSHOP OBJECTIVE

The objective of the workshop, co-organized by Joint Research Centre, University of Oxford, Middle East Technical University and Max Planck Institute, is to discuss the present status of physics based constitutive modelling and experimental methods of metallic materials. Such approaches lead to a better understanding of how the material microstructure, loading and environmental conditions affect deformation, degradation and failure. Physics-based models are also crucial for extrapolation of material properties beyond operational experience in a predictive manner to improve long-term performance and safety margins of engineering components.



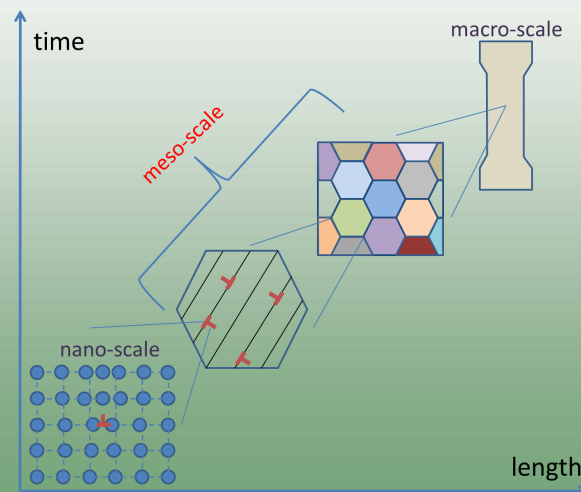
The Workshop funded by the EU Enlargement & Integration Action (E&IAT) is an opportunity for scientists and engineers from EU States and target countries to discuss research activities that could form basis for future collaborations.

CONFIRMED KEYNOTE SPEAKERS

Prof. Alan Cocks, University of Oxford, UK
Prof. Gerhard Dehm, Max-Planck Institute, Germany
Prof. Vikram Deshpande, University of Cambridge, UK
Prof. Norman Fleck, University of Cambridge, UK
Prof. Marc Geers, TU Eindhoven, The Netherlands
Dr. Wolfgang Hoffelner, RWH Consult GmbH, Switzerland
Prof. Sandra Korte-Kerzel, RWTH Aachen, Germany
Prof. Daniel Rittel, Technion, Israel
Dr. Maxime Sauzay, CEA SACLEY, France
Prof. Cynthia A. Volkert, Georg-August-Universität Göttingen, Germany

WORKSHOP SCOPE

The structural integrity and functioning of mechanical components is linked to material microstructure and the defects therein and as well as to temperature, constant/cyclic loading, presence of corrosive gasses/liquids and irradiation which then lead to plasticity, creep, fatigue, stress-corrosion and embrittlement. In order to enhance the understanding of these phenomena and associated mechanisms, physics-based modelling tools of deformation, degradation and failure at different length and time scales are continuously developed and compared/validated with experimental findings. The emphasis of the Workshop will be on the meso-scale that lies in between the atomistic nano-scale and macro scale. Models ranging from dislocation dynamics, crystal plasticity to phenomenological macro-scale studies, multi-scale schemes, homogenization methods and experimental studies of meso-scale mechanics and material science are in the scope of the workshop.



ORGANIZERS

Dr. Can Ayas, University of Cambridge
Dr. Ercan Gurses, Middle East Technical University
Dr. Karl-Fredrik Nilsson, JRC - European Commission
Dr. Cem Tasan, Max-Planck Institute, Germany
Dr. Tuncay Yalcinkaya, University of Oxford

WORKSHOP VENUE

The workshop will be held in Çeşme/Izmir. Izmir is third most populous city in Turkey with over 4 million inhabitants. Izmir has almost 3,500 years of recorded urban history and possibly even longer as an advanced human settlement. Lying on an advantageous location at the head of a gulf running down in a deep indentation midway on the western Anatolian coast, the city has been one of the principal mercantile cities of the Mediterranean Sea for much of its history. Modern Izmir also incorporates the nearby ancient cities of Ephesus, Pergamon, Sardis and Klazomenai, and centers of international tourism such as Kuşadası, Çeşme, Mordoğan and Foça. Izmir has a Mediterranean climate where the air temperature can climb as high as 40 °C from June to September; however it is usually between 30 and 36 °C.

GETTING THERE

Izmir is served by national and international flights through the Adnan Menderes International Airport. The airport, located 18 km southwest of the city, is very connected with the center and Cesme through coaches.



WORKSHOP FORMAT

The purpose of the workshop is to bring together scientists and researchers from the **EU member states** and the **target countries of E&IA** (Enlargement & Interaction Action) of European Commission.

The workshop will be a 2.5 day event based on the oral presentations from the invited international lecturers, presentations by participants and a poster session.

A number of **grants** to cover travel and accommodation is available for participants from the **E&IA target countries** (citizen or place of work). In addition to the invited experts and the participants from the target countries, the workshop is open to the international community who are willing to attend or present their work. **The target group of the workshop is the young scientists from both academia and industry.**

REGISTRATION FEE & FUNDING

There is no registration fee for the workshop. The refreshments at the coffee breaks, the lunches and the workshop dinner will be **free of charge** for all participants.

The travel costs of attendees with **grant** (economy flight + hotel + daily allowance) from the target countries will be reimbursed after the workshop. European Commission reserves the right to decide on the grants on a case by case basis depending on the available budget.

TARGET COUNTRIES

In the frame of E&IA (Enlargement & Interaction Action), the JRC offers specialized workshops, advanced training courses, and small projects with a focus on experts from the new member states (Croatia), candidate countries (Turkey, The former Yugoslav Republic of Macedonia, Iceland, Montenegro), Potential candidate countries (Serbia, Albania, Kosovo, Bosnia-Herzegovina), FP7 Associate countries (Switzerland, Israel, Norway, Lichtenstein, Faroe Island, Moldova), European Neighborhood Policy countries (Algeria, Armenia, Azerbaijan, Belarus, Egypt, Georgia, Jordan, Lebanon, Libya, Morocco, Occupied Palestinian Territory, Syria, Tunisia, Ukraine) and Russia.

WORKSHOP WEBPAGE: <http://iwpmeo.org>

KEY DATES

- Abstract submission and grant application 01.04.2014
- Notification of abstract acceptance 15.04.2014
- Announcement of grants 15.04.2014
- Deadline for registration 01.05.2014
- **Workshop** **02.06.2014 - 04.06.2014**

ABSTRACT SUBMISSION AND REGISTRATION

Workshop is open for registration now. Abstracts (in word format) not exceeding 400 words, for presentations and posters, are to be submitted to the workshop email address: **JRC-IET-IWPMEO@ec.europa.eu**

After the workshop a European Commission JRC scientific report with Workshop Proceedings will be published. The registration could be done by sending the registration form to workshop email address. The number of participants (without registration fee) is limited and preference will be given participants who submit an abstract or participants from target countries.

CONTACTS

The workshop is advertised on the following web-page: <http://iwpmeo.org>

Applications for the grants should be sent to:

JRC-IET-IWPMEO@ec.europa.eu

The grant application should include the registration form (available on the webpage), a CV, a motivation letter and the abstract. These applications will be redirected to the organizers for review.

Workshop contacts:

Karl-Fredrik.NILSSON@ec.europa.eu

tuncay.yalcinkaya@eng.ox.ac.uk

ACCOMODATION

The grant-holders will stay at the workshop hotel which will be arranged by the workshop contact persons. Participants willing to stay in other hotels could easily reserve high quality accommodation in Cesme or in Alacati via internet as well. Alacati is famous with its interesting boutique hotels.

SOCIAL PROGRAMME

A visit to Ephesus ancient city and Sirince village will be arranged on the third day of the workshop. The cost of the regarding trip will not be covered from the grant.

