

Application Form for the Organization of an IUVSTA Workshop

TITLE OF THE WORKSHOP:

“Advances in the characterization of surface engineering structures, coatings, and thin films”

VENUE: Schloss Seggau, Austria (<http://www.seggau.com>)

Alternative locations:

- MONDI-HOLIDAY HOTEL Grundlsee (<http://www.grundlsee.mondiholiday.at>)
- Genusshotel Riegersburg (<http://www.hotel-riegersburg.at>)
- Hotel Spirodom Admont (<http://www.spirodom.at>)

DATES: To be confirmed (tentative: spring or fall 2021)

PRINCIPAL THEMES/TOPICS:

There have been significant advances in the characterization techniques for nanostructure, composition, and properties of surface engineering structures, coatings, and thin films. The aim of the workshop is to focus on these emerging techniques, which have been established or strongly developed within the past decade. The main portion of invited talks, given by well recognized experts, will cover mainly synchrotron X-ray based techniques, scanning and transmission electron microscopies, atom probe microscopy, nanomechanical testing approaches, and unique in-situ/in-operando and temperature variable setups. The topical key areas of the workshop will be divided into three groups, namely, microstructural, chemical and residual stress characterization, nanomechanics as well as in-situ/in-operando studies and thermal properties. It is planned to devote one day to each of these areas, however crosslinking to other areas during the lectures and discussions is encouraged. The need to use a combination of advanced techniques to fully understand structure-composition-properties relationships will be highlighted. Young participants will be encouraged to participate in topical poster sessions. It is expected that the workshop will start a tradition of gathering world-class scientists and students engaged in these particular fields.

Provisional program:

Day 1:

- welcome reception,
- opening keynote lecture on the workshop topic,
- Invited talks related to the keynote lecture,
- poster display and discussion of open questions related to workshop topic (posters should remain on display during the entire workshop).

Day 2:

- main topic “**Advanced microstructural characterization of coatings and thin films**” – lectures and discussion mainly on synchrotron XRD, SEM, TEM and APT approaches,
- round table discussions on these topics and
- poster session.

Day 3:

- main topic “**Micro- and Nano-mechanics**” – lectures and discussion, mainly on SEM, TEM and synchrotron XRD approaches,
- round table discussion on mechanics-related topics and
- excursion.

Day 4:

- main topic “**In-situ characterization and thermal properties of coatings and thin films**” – lectures and discussion,
- summary of workshop topics and identification of future research topics.

IUVSTA SCIENTIFIC SPONSORING DIVISIONS:

Surface Engineering (applying division), Nanometer Structures (to be confirmed), Thin Films (to be confirmed), Applied Surface Science Division (to be confirmed).

NAMES AND AFFILIATIONS OF ORGANIZERS (not more than 4, which must include at least one IUVSTA Divisional Committee member; please identify the Main Organiser and provide their full contact details):

Organisers

Jozef Keckes (Montanuniversität Leoben, Austria)

Nina Schalk (Montanuniversität Leoben, Austria)

Michael Tkadletz (Montanuniversität Leoben, Austria)

Ivan Petrov, (University of Illinois, Urbana-Champaign, USA)

Scientific Board

Christian Mitterer (Montanuniversität Leoben, Austria), Member of the Advisory Board and former Vice-President of the Austrian Vacuum Society, former Vice-Chair and Secretary of IUVSTA Surface Engineering Division

Rostislav Daniel (Montanuniversität Leoben, Austria)

Jochen M. Schneider (RWTH Aachen, Germany)

Andrey A. Voevodin (University of North Texas, Denton, TX, USA)

Per Persson, (Linköping University, Sweden)

NAMES AND AFFILIATIONS OF LIKELY INVITED SPEAKERS (list of potential speakers)

1. Gregory Abadias (PPrime, Poitiers, France)
2. Marco Sebastiani (RomaTre, Italy)
3. Alexander Korsunsky (Oxford, UK)
4. Johann Michler (EMPA, Switzerland)
5. Ralph Spolenak (ETH, Switzerland)
6. Naureen Ghafoor (Linköping, Sweden)
7. Per Persson (Linköping, Sweden)
8. Baptiste Gault (MPIE, Germany)
9. Xavier Sauvage (Ruoen, France)
10. Peter Hosemann (Berkeley, USA)
11. David Rafaja (Freiberg, Germany)
12. Manfred Burghammer (ESRF, France)
13. Christina Krywka (DESY, France)
14. Markus Winkler (Fraunhofer Freiburg, Germany)
15. Marco Deluca (MCL Leoben, Austrian)
16. George Pharr (Texas A&M, USAY)
17. Ude Hangen (Bruker Nano GmbH, Germany)
18. Thomas Pühringer (Anton Paar, Switzerland)
19. Martin Pfeiler (Anton Paar, Austria)
20. Katrin Fladischer (MCL Leoben, Austria)
21. Verena Leitgeb (MCL Leoben, Austria)
22. Olivier Thomas (AIX Marseille, France)
23. Andrey Voevodin (University of North Texas, USA)
24. Sam Zhang (Nanyang Technological University, Singapore)
25. Frank Mücklich (Universität des Saarlandes, Germany)
26. Frans Munnik (HZG Dresden, Dresden)
27. Marcus Hans (RWTH Aachen, Germany)
28. Jens Birch (Linköping University, Sweden)
29. Kostas Sarakinos (Linköping University, Sweden)
30. Per Eklund (Linköping University, Sweden)

NAMES OF OTHER SPONSORS (actual and anticipated; include indication of known or anticipated level of financial contribution: IUVSTA must be advertised as the main sponsor):

List of potential sponsors:

- Materials Center Leoben
- Bruker AXS
- Hysitron (Bruker)
- Dectris
- Alemnis
- Setaram (od. Prager)
- Phi Electronics
- Anton Paar
- ASMEC

It is planned to offer different display possibilities for sponsoring companies. Sponsoring will be available for the program book, the website and the banquet. In addition it is planned to offer exhibition space for a limited number of companies. In total it is expected to raise 4000 € from sponsoring companies.

UNDERWRITING: Who will underwrite any financial loss? (If approved, IUVSTA will offer sponsorship to a predetermined maximum level and will not have any further financial responsibility)

Österreichische Gesellschaft für Vakuumtechnik (Austrian Vacuum Society)

WEB-SITE

A website will be created and hosted at Montanuniversität Leoben by Jozef Keckes.

REPORT

A report on the event will be prepared by:

- Ivan Petrov (petrov@illinois.edu)
- Jozef Keckes (jozef.keckes@unileoben.ac.at)
- Nina Schalk (nina.schalk@unileoben.ac.at)
- Michael Tkadletz (michael.tkadletz@unileoben.ac.at).

DRAFT BUDGET FOR IUVSTA WORKSHOP "Advances in thin film and coating characterization" (Austria, 2021)

TITLE: DRAFT BUDGET FOR IUVSTA WORKSHOP "Advances in thin film and coating characterization"

VENUE: Seggau, Austria

DATE: Autumn 2021

Income	Unit cost (EUR)	Quantity	Sub-Total (EUR)	Remarks
Registration Fee (per person)	850	30	25.500	30 registered participants plus 10 invited speakers
Sponsors	4.000	1	4.000	Airticket partial funding
IUVSTA funding	6.000	1	6.000	Funding supports for invited speakers
Total (EUR)			35.500	

Expenditures	Unit cost (EUR)	Quantity	Sub-Total (EUR)	Remarks
Meals (4 days per person)	70	40	2.800	Lunch breaks, Dinner breaks, and Coffee breaks
Excursion (per person)	50	40	2.000	Transportation and Tickets
Banquet (per person)	50	40	2.000	
Meeting Rooms (per day)	60	40	2.400	
Hotel Rooms (4 nights)	500	40	20.000	
Coffee Break	80	40	3.200	
Miscellaneous	1.100	1	1.100	
Flyer, program and abstract book, badges	50	40	2.000	
Total (EUR)			35.500	

* Exchange rate EUR/USD ~ 1.14 ; any other relevant exchange rate

ÖSTERREICHISCHE GESELLSCHAFT
FÜR VAKUUMTECHNIK (ÖGV)

Geschäftsstelle

c/o Technische Universität Wien

Institut für Angewandte Physik/E134

Widner Hauptstraße 8-10, 1040 Wien

Univ.Ass. Dipl.-Ing. Dr. techn. Helmut Riedl-Tragenreif

on behalf of the Austrian Vacuum Society (President, Dr. Helmut Riedl-Tragenreif)

Application Form for the Organization of an IUVESTA Workshop

TITLE OF THE WORKSHOP: **Advances in the characterization of surface engineering structures, coatings, and thin films**

VENUE: Castle Seggau, Austria (<http://www.seggau.com>)

DATES (NB workshops should normally be 4-5 days in length): Autumn 2021

PRINCIPAL THEMES/TOPICS: Advances in characterization techniques for nanostructure, composition, and properties of surface engineering structures, coatings, and thin films.

IUVSTA SPONSORING DIVISIONS: Surface Engineering

NAMES AND NATIONALITIES OF ORGANIZERS (not more than 4, which must include at least one IUVESTA Divisional Committee member; please identify the Main Organiser and provide their full contact details):

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Johann Michler (EMPA, Switzerland)	Markus Winkler (Fraunhofer, Germany)	Frank Mücklich (Uni. Saarlandes, Germany)
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Per Persson (Linköping, Sweden)	Ude Hangen (Bruker Nano GmbH, Germany)	Jens Birch (Linköping University, Sweden)
Baptiste Gault (MPIE, Germany)	Thomas Pühringer (Anton Paar, Switzerland)	Kostas Sarakinos (Linköping Uni. Sweden)
Xavier Sauvage (Ruoen, France)	Martin Pfeiler (Anton Paar, Austria)	Per Eklund (Linköping University, Sweden)
Peter Hosemann (Berkeley, USA)	Katrin Fladischer (MCL Leoben, Austria)	
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UNDERWRITING: Who will underwrite any financial loss? (If approved, IUVESTA will provide sponsorship to a predetermined maximum level and will not have any further financial responsibility)

Austrian Vacuum Society, Austria

CHECKLIST FOR APPLICANTS

Organizers **must** undertake to fulfil the conditions below. Financial contributions from IUVSTA are conditional upon this undertaking.

I AGREE to -

- PROVIDE full information of event to the IUVSTA Scientific Secretary
- PROVIDE a budget, updated in the event of major changes, to the IUVSTA Scientific Secretary
- PROVIDE a dedicated Website for the event. Give url when known (this information must be passed to the Scientific Secretary before any IUVSTA funds will be released):

Name and e-mail address of person who will maintain the site:

Prof. Jozef Keckes, keckes@unileoben.ac.at

- PROVIDE a report of the event after its completion for the IUVSTA web site

Name and e-mail address of person who will provide this report:

Prof. Ivan Petron, petrov@illinois.edu

- AGREE to include IUVSTA name and logo on all event announcements
- AGREE to use IUVSTA numbering system (e.g. IUVSTA Workshop no NN) on all event announcements
- AGREE to give a short presentation on IUVSTA at the beginning of the event. (Suitable material may be downloaded from the IUVSTA web site <http://www.iuvsta.org>)
- AGREE to distribute any IUVSTA material provided to the organizers
- AGREE not to have a published Proceedings of the event
- AGREE to follow the Workshop Guidelines described in the IUVSTA Procedure Manual (downloadable from the IUVSTA web site: <http://www.iuvsta.org>)

I agree to fulfil all the points of the above checklist

Name: Prof. Jozef Keckes, keckes@unileoben.ac.at

Date and Signature:

February 13th, 2020

