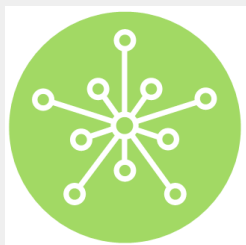


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**European  
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Institute of Physics



<http://cmacdays2014.ifs.hr/>

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**European  
C-MAC**

European Integrated Center for the  
Development of New Metallic Alloys  
and Compounds – European C-MAC

# C-MAC Days 2014

## Programme

December, 8-11, 2014

Institute of Physics



Zagreb, Croatia

## Monday, December 8th 2014

Arrival/Registration  
Dinner

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## Tuesday, December 9th 2014

8:50 – 21:00

### Welcome

*Slobodan Milošević*, director of the Institute of Physics  
*Marc de Bossieu*, **EUROPEAN C-MAC** director

### Thermoelectric clathrates: From phonons to correlations

*Silke Paschen*

### Thermoelectric properties of $\text{Ba}_8\text{Au}_{5.25}\text{Ge}_{40.3}\square_{0.45}$ type-I clathrates

*Petr Tomeš*

### Phonon propagation and thermal conductivity in the $\text{Ba}_8\text{Ge}_{40.3}\text{Au}_{5.25}$ clathrate and approximant-crystal $\text{o-Al}_{13}\text{Co}_4$

*Pierre-François Lory*

### Crystal growth of $\text{FeSb}_2$ and $\text{CoSb}_3$ by a modified Bridgman technique

*Peter Gille*

### Insights into charge stripe order in a co-doped cuprate superconductor from nonlinear response

*Damjan Pelc*

11:10 – 11:30 Coffee break

### High-entropy alloys: growth, microstructure and defects

*Michael Feuerbacher*

### $\text{Ta}_{34}\text{Nb}_{33}\text{Hf}_8\text{Zr}_{14}\text{Ti}_{11}$ – The First Observation of Superconductivity in High-Entropy Alloys

*Primož Koželj*

### Eutectic High-Entropy Alloys

*Sheng Guo*

12:35 – 14:30 Lunch break

### Strongly correlated electrons in icosahedral Yb quasicrystals and approximants

*Kazuhiko Deguchi*

### Geometrically frustrated magnetism of spins on icosahedral clusters: The $\text{Gd}_3\text{Au}_{13}\text{Sn}_4$ quasicrystalline approximant

*Stanislav Vrtnik*

### Kondo lattice – fluctuating valence transition in $\text{Ce}(\text{Cu}_{1-x}\text{Ni}_x)_4\text{Al}$ compounds

*Magdalena Wencka*

### Complex Magnetic Order - the Skyrmion Lattice

*Ivica Živković*

16:20 – 16:45 Coffee break

### Graphene: from synthesis to composites

*László Forró*

### "Chemical" and "Mechanical" Engineering of Epitaxial Graphene

*Marko Kralj*

### Many-Body Contact Repulsion of Soft Disks

*Antonio Šiber*

### The first-order transition in magnetocaloric $\text{LaFe}_{11.8}\text{Si}_{1.2}$ probed by in-situ synchrotron XRD

*Anja Waske*

### Magnetic characterization and 3D-imaging of epoxy-bonded magnetocaloric composites

*Bruno Weise*

18:40 – 19:30 Dinner

### Poster session (19:30 – 21:00)

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## Wednesday, December 10th 2014

9:00 – 18:30

### The Surface Dynamics of Intermetallic Compounds in Catalysis

*Marc Armbrüster*

### Surface Science Investigations on Structures and Adsorption Sites of Single Crystal PdGa Surfaces

*Roland Widmer*

### *In Situ* microscopic study of surfaces of intermetallic compounds for catalysis

*Abdullah Al-Mahboob*

### DFT modeling and transport properties of PdGa and PdIn compounds

*Ivo Batistić*

### *In Situ* Investigation of Bulk ZnPd: Different Synthesis – New Results

*Dennis Ivarsson*

### Investigation of thermal stability of Al-Mo thin films

*Marija Sorić*

11:25 – 11:45 Coffee break

### Chemical bonding networks and their role on the structure of $\text{Al}_{13}\text{TM}_4$ (TM= Fe, Ru) surfaces

*Julian Ledieu*

### Influence of the 3-dimensional cluster and preparation conditions on the structure of $\text{Al}_5\text{Co}_2(2\bar{1}0)$ and (100) surfaces

*Matthias Meier*

### Comprehensive model of metadislocation motion in $\text{o-Al}_{13}\text{Co}_4$

*Markus Heidelmann*

12:50 – 14:40 Lunch break

### Surface chemistry of CMAs

*Marie-Geneviève Barthés-Labrousse*

### Mechanical properties of Al/Al-Cu-Fe composites newly elaborated by Spark Plasma Sintering

*Aurélie Joseph*

### Molecular dynamics simulations of the deformation behavior of bulk metallic glass composites exhibiting stress-induced martensitic transformation

*Daniel Sopa*

16:05 – 16:20 Coffee break

### Statistics of intermetallic compounds

*Julia Dshemuchadse*

### Cluster-based growth algorithm for decagonal quasicrystals

*Pawel Kuczera*

### Simple decoration model for icosahedral quasicrystals based on AUC approach

*Radostaw Strzalka*

### Investigating Al-CVD using DMEAA: Experiments and modeling of the kinetics and the surface roughness

*Yiannis G. Aviziotis*

### Can we help establish complex metallic systems center in Zagreb?!

*Davor Pavuna*

### Concluding remarks, Ana Smontara & Ronan McGrath

19:30 C-MAC Days dinner

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## Thursday, December 11th 2014

9:00 – 12:00

Science Board, Governing Board and General Assembly