

PROGRAM

Monday, December 7, 2020

Workshop on “Team skills” guided by Dr. Magdalena Wencka

Tuesday, December 8, 2020

Chairs: *Juri Grin*

- 09:30 – 09:40 Julian Ledieu
Welcome
- 09:40 – 10:00 Vincent Fournée
Pat Thiel and Quasicrystal surfaces
- 10:00 – 10:20 Laura Agnarelli
Mg_{29.16}Pt₄: a complex intermetallic compound
- 10:20 – 10:40 Yurii Prots
Structural complexity of Mn₆Ga₂₉
- 10:40 – 11:00 Kristian Bader
Single crystal growth and characterization of Ga₃Pd₅
- 11:00 – 11:30 Break

Chairs: *Peter Gille*

- 11:30 – 11:50 Girma Gebresenbut
Peritectic formation and phase stability of the icosahedral quasicrystal i-GdCd and its ternary variants with Zn, Mg, and Y
- 11:50 – 12:10 Maike Thal
Quasi-Binary Systems (Ga_{1-x}Sb_x)Pd₂ and (Ga_{1-x}Bi_x)Pd₂
- 12:10 – 12:30 Alfred Amon
Crystal structure and bonding in the polar intermetallic compound Be₄₆Pt₁₄
- 12:30 – 13:30 Lunch

Chairs: Janez Dolinsek

- 13:30 – 13:50 Ireneusz Buganski
The distribution moments analysis for the high-temperature X-ray diffraction data of d-AlCuRh
- 13:50 – 14:10 Andreja Jelen
Should nanostructure determination in high-entropy alloys be a new standard?
- 14:10 – 14:30 Sylwia Gutowska
Electron-phonon mediated superconductivity of LiBi
- 14:30 – 14:50 Mitja Krnel
Superconductivity in high-entropy and medium-entropy alloys from the Ti-Zr-Hf-Nb-Ta-Sc system
- 14:50 – 15:10 Gabriel Kuderowicz
Soft-mode enhanced type-I superconductivity in LiPd₂Ge
- 15:10 – 15:40 Break

Chairs: Magdalena Wencka

- 15:40 – 16:00 Marko Kuveždić
Universal superconductivity in compositionally complex transition metal alloys
- 16:00 – 16:20 Darja Gačnik
The effect of structural inhomogeneity on “dirty” superconductivity in tin-containing alloys
- 16:20 – 16:40 Naveen Singh Dhani
Pressure dependent electronic structure of EuTGe₃ (T = Co, Rh)
- 16:40 – 17:00 Josipa Šćurla
High-temperature electrical characterisation of WN_x

17:00 – 17:30

Poster discussion

#1 – Radoslaw Strzałka

*High-temperature structural studies of d-AlCuRh –
new correction for phasons*

#2 – Oscar Shedwick

The study of the surface of a Gallium Nickel binary

#3 – Naïma Saadi

*Utilising 3D-printing to aid visualisation of complex
atomic structures*

#4 – Tomasz Toliński

*Magnetic and electrical properties of Gd₅Si₂Ge₂ thin
films*

#5 – Karol Synoradzki

Magnetocaloric effect in hexagonal NdCrGe₃

#6 – Bruno Gudac

De Haas-van Alphen oscillations in ZrSiS and HfSiS

Wednesday, December 9, 2020

Chairs: *Silke Bühler-Paschen*

- 09:30 – 09:50 Gaku Eguchi
Transport study of topological bands: remarkable feature in a thermoelectric material
- 09:50 – 10:10 Kamil Ciesielski
Enhanced thermoelectric performance in n-type regime for half-Heusler phase ScNiSb
- 10:10 – 10:30 Stanislav Vrtnik
Thermal memory effect in the g-brass type pseudo-binary $Ni_2Mn_{0.3}Zn_{10.7}$ phase
- 10:30 – 11:00 Break

Chairs: *Marc de Boissieu*

- 11:00 – 11:20 Shelby Turner
Phonon behavior in a random solid solution: A lattice dynamics study on the high-entropy alloy FeCoCrMnNi
- 11:20 – 11:40 Geoffroy de Laitre
Dynamical properties of the incommensurately modulated Rb_2ZnCl_4 phase
- 11:40 – 12:00 Joanna Smietanska
Molecular dynamics simulation for validation of the phononic ADPs in Hyp-1 protein
- 12:00 – 12:30 Poster discussion
#1 – Radoslaw Strzałka
High-temperature structural studies of d-AlCuRh – new correction for phasons
#2 – Oscar Shedwick
The study of the surface of a Gallium Nickel binary
#3 – Naïma Saadi
Utilising 3D-printing to aid visualisation of complex atomic structures

#4 – Tomasz Toliński
Magnetic and electrical properties of $Gd_5Si_2Ge_2$ thin films

#5 – Karol Synoradzki
Magnetocaloric effect in hexagonal $NdCrGe_3$

#6 – Bruno Gudac
De Haas-van Alphen oscillations in $ZrSiS$ and $HfSiS$

12:30 – 13:30 Lunch

Chairs: *Emilie Gaudry*

13:30 – 13:50 Dominic Burnie
Atomic diffusion on the fivefold surface of the i -Ag-In-Yb quasicrystal

13:50 – 14:10 Amnah Alofi
Thin film growth of pentacene (Pn) on the two-fold surface of the icosahedral Ag-In-Yb quasicrystal

14:10 – 14:30 Florian Brix
Tuning adsorption energies and reaction pathways by alloying: PdZn versus Pd for CO_2 reduction to methanol

14:30 – 14:50 Iryna Antonyshyn
Structural complexity and chemical behaviour of $Hf_2B_2Ir_5$ in oxygen evolution reaction

14:50 – 15:20 Break

Chairs: *Ronan McGrath*

15:20 – 15:40 Sebastian Schenk
Dodecagonal oxide quasicrystal approximant with 72 tiling elements

15:40 – 16:00 Thiago Trevizam Dorini
Two-dimensional ABO_3/Me oxide quasicrystal approximants: insights from Density Functional Theory

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- 16:00 – 16:20 Catalina Ruano Merchan
*New Quasicrystal Approximants in the
SrTiO₃/Pt(111)/Al₂O₃(0001) system*
- 16:20 – 16:40 Fevzi Kafexhiu
*Tribological performance of the AlCoCrFeNi_{2.1}
eutectic high-entropy alloy in as-cast and aged
condition*
- 16:40 – 16:50 Julian Ledieu
Concluding Remarks

Thursday, December 10, 2020

09:30 – 11:00	Science Board Meeting
11:00 – 11:20	Break
11:20 – 12:30	Governing Board Meeting and General Assembly
14:00 – 14:10	Online announcement of the oral and poster prizes