

SIG3 - Special Interest Group on Aperiodic Crystals

Reported Period: 2018-2019

Report Date: 30 June 2019

Reported by: John Claridge (Chair) and Michal Dusek (Secretary)

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1. Introduction.

The activities of SIG#3 concentrate on spreading the knowledge about aperiodic crystallography in conferences and workshops as well as through the WEB site on Aperiodic Crystals.

2. SIG web site:

SIG3 has a website common with IUCr Commission on Aperiodic Crystals (CAC). The following links refer to the same website:

<http://sig3.ecanews.org>

<http://aperiodic.iucr.org>

3. Number of ECA individual members registered with the SIG according to (<http://www.xray.cz/eca/im-payment.htm>)

94

4. Existence of a SIG mailing list: Yes

Address of the mailing list: none

Number of members in the SIG mailing list : 29

Currently we maintain only distribution list for making various announcements. People interested in this mailing list can subscribe through the SIG#3 web page. There is however little or no interest in this form of communication.

5. Approximate total number of researchers involved in the SIG (please indicate the basis for the estimate)

120 (estimate based on the attendance of MS organized by SIG#3, the interest in giving lectures in those MS, attendance of the Aperiodic conferences, and number of individual members.)

6. List of MS, plenary and keynote lectures with the SIG participation at the last ECM Meeting

The 31st European Crystallographic Meeting, ECM31, Oviedo, Spain, 22-27 August 2018

- Lukáš Palatinus, plenary lecture “Crystallography in the 21st century: the age of electron?”
- MS 014. Combined approaches for structure characterization of modulated and complex structures
- MS 023. Advances in electron crystallography methods
- MS 026. Aperiodic and modulated structures
- MS 027. Quasicrystals: theory and experiment
- MS 028. Magnetic order: methods and properties

7. Prizes sponsored/coordinated

none

8. Past Activities other than Microsymposia at ECM meeting

Title: 9th International Conference on Aperiodic Crystals (Aperiodic 2018) (8-13 July, Ames, Iowa, USA)

Number of Participants: ~120

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: IUCr

Description: A conference about theoretical and practical aspects of aperiodic structures. For proceedings, see http://journals.iucr.org/special_issues/2019/aperiodic2018/

Title: ICQ14 – 14th International Conference on Quasicrystals (26-31 May 2019, Kranjska Gora, Slovenia)

Number of Participants: ~100

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets) No

Sponsored by ECA? No

Other Sponsors/Organizers: Other Sponsors/Organizers: European Integrated Centre for the Development of New Metallic Alloys and Compounds, University of Ljubljana

Short Description: The conference about latest results in the fields of quasicrystals, complex metallic alloys and related topics (aperiodic soft matter, metallic glasses, high-entropy alloys, etc.), including related topics from mathematics, physics, chemistry, metallurgy and materials science.

Title: Magnetic Crystallography (31 May – 9 June 2019, Erice, Italy)

Number of Participants: 57

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets) No

Sponsored by ECA? No

Other Sponsors/Organizers: Other Sponsors/Organizers: European Integrated Centre for the Development of New Metallic Alloys and Compounds, University of Ljubljana

Short Description: The 53rd course of the International School of Crystallography on the subject of Magnetic Crystallography, including workshops on FullProf, JANA 2006, SARAh, the Bilbao Crystallography Server, the ISOTROPY Software Suite, GSAS-II, and TOPAS.

Title: Jana Ad Hoc Workshops (Prague, Czech Republic)

Two workshops (35,36) listed in <http://jana.fzu.cz>

Number of Participants: 20

Level of involvement of SIG in the activity:

- ECA Individual members registered with the SIG involved in the organizing committee
- ECA Individual members registered with the SIG involved as lecturers
- endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: Institute of Physics, Prague

Short Description: Small workshop on various topics connected with software Jana2006

Title: Jana Modulation Workshop (10-13 December, USA, San Diego)

<http://crystals.ucsd.edu/meeting.html>

Number of Participants: 24

Level of involvement of SIG in the activity:

ECA Individual members registered with the SIG involved in the organizing committee

ECA Individual members registered with the SIG involved as lecturers

endorsed: no

Sponsored by ECA? No

Other Sponsors/Organizers: Bruker, Rigaku / Institute of Physics, Prague

Short Description: Workshop on various aspects of modulated structures and their solution with Jana2006

9. Future/Programmed Activities.

Title: Twenty-Fifth Congress and General Assembly of the International Union of Crystallography (22-30 August 2020, Prague, Czech Republic)

Number of Participants: ~2000

Level of involvement of SIG in the activity:

ECA Individual members registered with the SIG involved in the organizing committee

ECA Individual members registered with the SIG involved as lecturers

Other Sponsors/Organizers: IUCr

Short Description: Members of SIG3 will participate in lectures and organization of microsymbosia

Title: The 4th International School on Aperiodic Crystals (8- 14 September 2019, Cotentin Peninsula, Normandy, France)

Number of Participants: ~50

Level of involvement of SIG in the activity:

ECA Individual members registered with the SIG involved in the organizing committee

ECA Individual members registered with the SIG involved as lecturers

Sponsored by ECA? Yes

Other Sponsors/Organizers: University of Caen, C-MAC, IUCr, CNRS, Jeol, Nanomegas ...

Short Description: Seven-days school about aperiodic structures, covering basics of the theory and experimental and computing approaches.

Title: The 10th Workshop on Structural Analysis of Aperiodic Crystals (12-16 March 2020, Bayreuth, Germany)

Number of Participants: ~30

Level of involvement of SIG in the activity:

ECA Individual members registered with the SIG involved in the organizing committee

- O ECA Individual members registered with the SIG involved as lecturers
- O endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: German Association for Crystallography, university of Bayreuth

Short Description: Five-days workshop about aperiodic structures covering the underlying theory and practical structure analysis.

Title: Jana Ad Hoc Workshops (Prague, Czech Republic) (~ three workshops during the next year)

Number of Participants: ~20

Level of involvement of SIG in the activity:

- O ECA Individual members registered with the SIG involved in the organizing committee
- O ECA Individual members registered with the SIG involved as lecturers
- O endorsed (SIG logo on the web page/leaflets)

Sponsored by ECA? No

Other Sponsors/Organizers: Institute of Physics, Prague

Short Description: Small workshop on various topics connected with software Jana2006

10. Other matters. (50 words max.)

On 25th May 2018 passed away one of the founders of crystallography of quasicrystals, An-Pang Tsai. See <http://icq14.ijs.si/in-memoriam-an-pang-tsai/> and <https://www.iucr.org/news/newsletter/volume-27/number-2/an-pang-tsai>

11. Brief annual activity report (100 words max.)

Activities of SIG#3 were focused on workshops and conferences. Most notable events in the field of aperiodic crystallography were the Aperiodic2018 conference in Ames, Iowa, and the 14th International Conference on Quasicrystals in Kranjska Gora.

12. List SIG officers, name and e-mail, and specify their main function in the SIG:

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Supplementary Materials.

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