

***SIG3 - Special Interest Group on Aperiodic Crystals***

***Reported Period: July 2019 - June 2020***

***Report Date: 22 April 2021***

***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> - **the link is broken**)**

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 32<sup>nd</sup> European Crystallographic Meeting, ECM32, Vienna, Austria, 18-23 August 2019

- KN03 Luca Bindi, keynote lecture "Solar System Secrets Hidden in Quasicrystals"
- MS20 Combined Approaches for Structure Characterization of Complex Materials at Multiple Length Scales
- MS23 Aperiodic and modulated structures
- MS24 Magnetic order: Methods and Properties
- MS26 Complex Metallic Alloys: Periodic and Non-Periodic

**7. Prizes sponsored/coordinated**

none

**8. Past Activities other than Microsymposia at ECM meeting**

**Title: The 4<sup>th</sup> 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: Workshop on Symmetry and Superspace Approach to Modulated Crystal Structures, 23-24 October 2019, Oak Ridge, USA)**

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? No

Other Sponsors/Organizers: --

Short Description: Concepts and applications of superspace symmetry to study complex and modulated crystal structures using single crystal neutron diffraction. Topical lectures will showcase examples and workflows. Hands-on tutorials on JANA2006 and ISODISTORT programs.

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

Cancelled

**Title: Jana Ad Hoc Workshops No 37 and 38 (Prague, Czech Republic)**

Number of Participants: 41

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

**9. Future/Programmed Activities (July 2020 – June 2021)**

Due to the Pandemy, the plans have been changed

- The IUCr Congress has been shifted from 2020 to 2021, and falls to the next period
- Aperiodic 2021 has been shifted to 2022

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

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

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.)

none

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

Activities of SIG#3 were focused on workshops and conferences. Most notable event in the field of aperiodic crystallography was The 4<sup>th</sup> International School on Aperiodic Crystals.

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

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#### Supplementary Materials.

None