

GIG3 – Education in Crystallography

Reported Period: September 2023-August 2024

Report Date: 12th August 2024

Reported by Kamil Dziubek, Annalisa Guerri and Chiara Massera

1. Introduction.

In the past year the activities of GIG3 have continued in line with the scope of the group, endorsing one school and working with other SIGs/GIGs to collaborate with the Program Committee for ECM34 and ECM35 (see point 10). GIG3 has been involved in several education projects (see point 8) and has also amended the Inauguration document (see point 9).

2. GIG web site:

The GIG3 website (<https://gig03eca.wixsite.com/gig03eca>) has been updated with the information related to the satellite event at ECM34.

3. Number of ECA individual members registered with the SIG/GIG according to <https://ecanews.org/groups/gig-03-education-in-crystallography/>

65 members

4. Existence of a SIG/GIG mailing list: Yes

Address of the mailing list: gig3eca@unipr.it

Number of members in the SIG/GIG mailing list: 70

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

65 (based on the members of the GIG and the mailing list).

6. List of MS and other event for ECM34

The ECM34 program is now set up. GIG3 organizes a satellite event that will take place on the 26th of August (13.30-16.30) devoted to “Crystallography in School” and a keynote lecture centered on the Erice School 50th anniversary: “Structural Biology in Drug Discovery through the (orange) years”, presented by Giovanna Scapin (US).

The three GIGs worked together on the program of the meeting and in the final program there are several different events of general interest:

- Keynote by Helena Butkiewicz on inclusion and diversity, chaired by Philipp Hans (JO) and Ghazala Sadiq (UK);
- MS41 “Approaches and tools for learning crystallography efficiently and avoiding misconceptions” chaired by Consiglia Tedesco (IT) and Josefina Perles-Hernaez (ES);
- MS39 “Things we no longer need to know – or do we?” chaired by Mike Glazer (UK) and Dubravka Matkovic-Calogovic (HR);
- MS38 Common mistakes and problems in using black boxes” chaired by Regine Herbst-Immer (DE) and Ross Angel (IT);
- MS43 “What I gained from Erice” Chaired by Paola Spadon (IT) and Annalisa Guerri (IT);

7. Prizes sponsored/coordinated: In this last year GIG3 worked for the constitution of a prize in memory of the late Lodovico Riva di Sanseverino, who founded the International School of Crystallography in 1974. The prize was announced and GIG3 received seven nominations. The board of judges awarded the prize to Claire Murray (DE).

In 2024 the call for the Women in Crystallography grants was also announced and opened. These grants aim to support young female crystallographers to attend different events around Europe. The grants were awarded to five students but one of them was renounced because the sum granted was insufficient to fully support her attendance to the event. The money was raised with the fundraising initiatives of the “Women in Crystallography” T-shirts, successfully carried on in Versailles at ECM33 and the 26th IUCr Congress in Melbourne. The fundraisings were also supported by STOE and Dectris.

8. Future/Programmed Activities

At the end of June, the first video of the project “Women in Crystallography – a video series” was released. The project is financed by RSC and involves the production of a series of ten video interviews on the issues of women in crystallography and gender bias in general (both conscious and unconscious), with the scope of raising awareness within the crystallographic scientific community and beyond. The first contribution was from Shanti Deemyad from the Department of Physics & Astronomy of the University of Utah, entitled “Journey Through the Quantum Realm: My Path as a High-Pressure Physicist”.

The video is posted on the ECA YouTube channel at:

<https://www.youtube.com/watch?v=JXzAYdtsDoo>

The second video of the series will be released at the end of August.

GIG3 has also launched a video crystal growth competition at the European level, supported with a grant from CCDC. The results of the competition and the videos can be seen at:

<https://ecanews.org/blog/2024/07/26/results-of-the-first-european-crystallography-video-contest/>

9. Other matters.

Recent activities of GIG3 have involved the issues of Diversity and Inclusion. Therefore, an amended version of the Inaugural Document has been drafted and approved by the Executive Committee of ECA. The modifications involve point IV and run as follows:

IV. Purpose

The purpose of the General Interest Group on Education in Crystallography is to promote and spread crystallography through education at different levels, following the principles of diversity, equity, and inclusivity.

The goals of the GIG-EC are:

1. Foster ideas and develop projects for the diffusion of crystallographic teaching.
2. Create a network to help monitor and rationalize activities relevant to the GIG.
3. Increase the awareness of the general public towards crystallography and its importance in modern science.
4. Engage in activities for the professional growth of minorities within the crystallographic community

The fundraising activity for the “Women in Crystallography” project has been organized also for ECM34. IUCr, Dectris and STOE are again the partners in this event. We hope to be able to increase the funds for the grants and support more female crystallographers to attend meetings and schools.

10. Brief annual activity report

GIG3 endorsed the 59th course of the International School of Crystallography on Powder Diffraction which was held in Erice from 31 May to 8th June 2024.

GIG3 contributes to the ECM35 program, especially in collaboration with GIG1 and GIG2. GIG3 is evaluating some possible speakers for a keynote. One suggestion is a lecture on using 3D models in teaching structural biology. Other potential topics concern quantum crystallography, stress and mental health among researchers and geopolitical and economic inequalities affecting education in science. A possible keynote could also be related to teaching and research in war zones.

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

Chair: Kamil F. Dziubek

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Vice-Chair: Annalisa Guerri

(annalisa.guerri@unifi.it)

Secretary: Chiara Massera

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