

Working Group WG-15 – Soft Matter Physics
Report to the IUPAP Council & Commission Chairs meeting
October 2018

Mandate of the proposed IUPAP Working Group on Soft Matter

1. To organize/assist in organization of the International Soft Matter Conference every 3 years in each geographic region (Europe, America, and Asia/Australia).
2. To coordinate soft-matter-related regional, national & local conferences, meetings & workshops
3. To coordinate soft matter education, such as summer schools and short courses and help organize them if a need appears
4. To promote soft matter research through information exchange, publicity, prizes, publications, etc.
5. To strengthen the connections between academic and industrial soft matter research and development through outreach events, short courses, etc.

Progress since last report submitted May 2018:

The WG15 had a teleconference June 26th, 2018 to review submissions for the International Soft Matter Conference (ISMC)

Presentations were given by the following teams:

India: Guruswamy Kumaraswamy and Apratim Chatterji

Japan: Ryoichi Yamamoto

US: Niels Holten-Andersen

Questions were asked of all three groups, and WG15 members were asked to submit their ranking of proposed sites (1st, 2nd, 3rd) by June 30th. In addition, WG15 members were asked to suggest areas for 3-4 subject sub-committees of the program committee; suggest what professional societies and industrial labs to contact; send links to sample web sites to use as models for ours.

The US proposal from MIT was approved by the IUPAP Working Group 15 for year 2020 to be the site of the International Soft Matter Conference (ISMC) in America with Osaka, Japan approved for ISMC 2021.

Michael Rubinstein traveled to Boston to work directly with the MIT organizing team August 16-19th, 2018.

During the meeting with local organizing committee (faculty from several MIT departments) Michael Rubinstein discussed essential steps in organizing a successful conference:

- a. reserving rooms for plenary & parallel sessions, posters, lunches, etc. as soon as the dates for the conference are fixed
- b. arranging for equipment for lectures and poster sessions
- c. dorm rooms reservations - as many as possible at MIT, but also at other local universities (BU, etc...)
- d. negotiation of lower rates and reservation of hotel rooms after the dates of the conference are fixed (this could be done through MIT Conference Services Office)

- e. establish industrial contacts - for conference support and participation in the conference (both equipment exhibits and posters; potential industrial speakers need to be coordinated with program committee).
- f. proposals to NSF (there are several divisions related to soft matter), NIH, DOE, ... to partially support the conference
- g. contact MIT departments for partial support
- h. fundraising at other local universities (Harvard, Brandeis, BU, BC, Northeastern, ...)
- i. organizing banquet - preferentially at a nice location off campus (e.g. Isabella Stewart Garden Museum, Harvard Annenberg Hall, of similar) arranging for transportation
- j. organizing a short course before the conference in consultation with the program committee
- k. potentially job/career fair for both academic and industrial track in soft matter, publication fair with editors
- l. organizing excursions, tours for accompanying people, childcare options, ...
- m. designing and building a website for the meeting, designing a logo for the meeting (in consultation with the program committee)
- n. running registration, budget accounting
- o. advertising the meeting (who controls distribution lists)
- p. fun social/scientific events - design (soft robotics) competition, Soft Olympiad from regional teams, cooking, cosmetics, public events

The WG15 -Americas had a teleconference in September 19th, 2018 in which planning for the 2020 conference was discussed.

1. Potential program committee members (11 members)

~ 5 members from the American sub-unit of WG-15

1 representative from ISMC 2021 (Asia – Hajime Tanaka to nominate)

1 representative from ISMC 2019 (Europe –Gerhard Gompper to nominate)

1 representative from local organizing committee (MIT)

1 representative from the Council of Soft-Matter-Related **Professional Organizations** APS (GSOFT, DBIO, DPOLY, GSNP, DFD, ...), ACS (Colloidal, POLY, PMSE, ...), MRS, AIChE, Rheology, ...

1 representative the Advisory Board Council of **Regional** Soft Matter Organizations

1 representative from the Advisory Board **Industrial** Council

1 representative from the Advisory Board Council of **American Countries** (Mexico, Brazil, Canada, ...)

2. Potential advisory board members

- a. Potential advisory board members suggested were: Council of Soft-Matter-Related **Professional Organizations** (Biophysical, MRS, AIChE, Rheology, Adhesion, APS, ACS, ...); Representatives from IUPAP Commissions C3 (statistical physics), C6 (biological physics), C10 (structure & dynamics of condensed matter), C20 (computational physics); Representatives from IUPAC Divisions (Physical & Biophysical, Polymer)
- b. Council of US **Regional** Soft Matter Organizations. Geographic representatives from regional soft matter organizations (New England Complex Fluids, New York, Mid-Atlantic, Virginia, Triangle, Atlanta, Chicago, California, ...)

- c. **Industrial** Council (Dow, Exxon, Cabot, L'Oreal, DuPont, BASF, Unilever, P&G, Mitsubishi Chemical, Merk, JSOL/J-OCTA, Toray, AGC, Hosokawa Micron, ...)
- d. Council of **American Countries** (Mexico, Brazil, Canada, ...)

3. Conference speaker logistics

Need to carefully select topics/speakers for ~24 sessions and ~8 plenary talks. Solicit ideas from the advisory board. Program committee selects and assembles the optimal subset of sessions/plenary talks in consultation with a local committee to fit the program schedule.

4. Proposed Job description of the program committee

Designing the structure and topics of the sessions and selecting speakers.

5. Proposed job description of the advisory committee

- a. Developing ideas/proposals with topics for scientific sessions and suggesting them (along with names of potential speakers) to the program committee
- b. Developing ideas for other events at the conference - roundtable discussions, forums on future directions of soft matter including life and AI, funding, international and cross-country collaborations
- c. To solicit and discuss proposals of future American ISMC 2023. It would be great to announce the next meeting at the ISMC 2020.
- d. Council of US regional soft matter organizations to discuss coordination and exchange between regional meeting as well as developing proposals for the ISMC2023.
- e. Industrial council to design a possible roundtable on basic research for industry: what will in the future replace Bell, Exxon, ... labs of the past?
- f. Should we contact editors of the relevant journals asking them for suggestions of topics, inviting them to the conference and, possibly, organizing an event related to publishing (besides poster prizes)?