

## **Mathematical Models in Evolution and Ecology conferences: organisation and principles**

### **Purpose**

Mathematical Modelling plays a central and increasingly important role in ecology and evolution. This involves mathematics traditionally classed into each of the classical areas of pure, applied and statistics. Modern modelling also increasingly makes use of computational and simulation methods. The object of the meeting is to show the latest development of mathematical (and computational) models in ecology and evolution and to demonstrate the important role of such modelling to a new generation of researchers.

### **Principles of the conference**

We try to accept all presentations, provided that they are of sufficient scientific merit. We are particularly keen to encourage researchers in the early stages of their career to speak in a conference which has always had a friendly and inclusive atmosphere.

The conference should be held in a European country. We have a preference that this is not the same country as the previous host.

The plenary speakers will cover a variety of subject areas and speakers from around the world will be invited, though normally a majority of plenary speakers should be Europe-based.

We strive for a balanced representation of the scientific community, as to gender, ethnic background or scientific seniority. in our speakers and other participants, including a balance of plenary speakers.

We charge the minimum registration fee necessary to host the conference, and do not make a profit; all income supports the science.

We provide reduced fees for PhD and masters students. Conference organisers should consider other categories eligible for a reduced fees, for example academics between positions or on fixed-term positions.

Conference hosts should consider the possibility of offering child-minding facilities during the conference.

Conference organisers should consider diet options and sustainability (a vegetarian option at least should be available and organisers are encouraged not to use disposable dishes etc.).

The conference aims to consider all areas of mathematical modelling in ecology and evolution, rather than specific themes, and this interpretation is quite broad. This includes simulation and computational methods as well in addition to the more traditional mathematical and statistical methods.

## **The Scientific Committee**

### *Membership:*

The Scientific Committee consists of:

the leading organisers of the last five meetings; when the host venue for the new meeting is selected, the new venue is added to the official list, and so the new leading organiser joins the scientific committee, in place of the organiser from five meetings previously;

four additional scientific committee members, who each serve a four year term; after each MMEE, two will thus be replaced by two new members. At that point also the committee chair will be considered.

Additional committee members are selected by the current committee, who should take into account the existing committee membership to achieve a balanced representation.

### *Duties:*

To approve the host venue of the MMEE conferences including provisional budgets and approximate delegate fees;

To select new MMEE Scientific Committee members, following the process described below;

To approve the plenary speakers for MMEE;

To approve the minisymposia for MMEE;

To approve the talk and poster abstracts for MMEE;

To approve the overall programme of the conference and the breakdown of presentations into sessions.

The majority of the work in the previous four categories will be done by the Local Organising Committee, but the Scientific Committee will have input according to its discretion, and significant changes may potentially be required. It is likely that approval of abstracts will be a general approval of the Local Organising Committee's plan, rather than any checking individual abstracts, but the scientific committee will offer its expertise to help assess abstracts if the local committee wishes. The Scientific Committee are likely to scrutinise the details of submitted minisymposia in more detail, for example.

The chairs of the Local and Scientific committees should maintain regular communication to ensure this process runs smoothly.

This new Scientific Committee format described above began in January 2019:

Membership - Mark Broom (chair), Amaury Lambert, Aditee Mitra, Jon Pitchford, Etienne Rajon, Susanne Schindler, Corina Tarnita, Minus van Baalen, Franjo Weissing.

### **The Local Organising Committee**

The Local Organising Committee will be responsible for all aspects of preparing for and running the conference. A definitive list of duties is too long to include here, but an approximation of this can be seen in the conference timeline below.

The Local Organising Committee must select a chair, who will join the main Scientific Committee. They will generally have a free hand to organise the conference as they see fit, but should abide by the principles of the conference mentioned above, and for a number of the main aspects of the conference (listed above) consult the Scientific Committee. For example, the local organisers have some freedom as to how to organise the minisymposium sessions. There are two principles: the organisers of minisymposia should attract people to the conference and so a reasonable proportion of a minisymposium's speakers should be directly invited by the organisers; minisymposia should not be for narrow cliques but of general interest, and so should involve a broad range of speakers - the local/scientific committee will require changes to the presenter list where this is deemed not to be the case.

Similarly if any big changes need to be made, the Scientific Committee should be consulted (this does not apply to smaller changes). What classes as a major change is to some extent at the discretion of the Local Organising Committee chair.

We note that some larger conferences have three layers of operation, with a main board overseeing the general work of the organisation outside the conference, the Scientific Committee dealing with scientific aspects of the conference and the Local Organising Committee dealing with practical matters. For MMEE the Local Organising Committee has a wider remit, and its role includes much of the work of the Scientific Committee from such events.

### **Previous conferences and chief organisers**

University of Sussex (2007, Mark Broom)

University of Bristol (2009, James Marshall)

University of Groningen (2011, Franjo Weissing)

University of York (2013, Jon Pitchford)

College de France, Paris (2015, Amaury Lambert)

City, University of London (2017, Mark Broom)

University of Lyon (2019, Etienne Rajon)

University of Reading (2022, Shovonlal Roy)

### **The conference cycle: practical issues and timeline**

The timings below are given as guides, from memory of previous conferences. It is possible that some important point has been missed out by chance. If you think of something not on the list, then please do not ignore it because it is absent (and let

us know!). The timings are written as if the conference took place in the middle of July. Precise dates a year or two behind are thus not important, but for dates close to the conference this should be borne in mind (thus the last July 1 activities really mean approx 2 weeks before the conference)

July - Previous conference happens (2 years before the new conference) September 15 - Call for new organisers to the Communication list

October - Preparation of proposal (venue including room availability, budget, possible plenary speakers)

November 15 - Deadline for proposal submission

November 15- December 15 - Scientific Committee review proposals, including discussions with proposers

December 15 - Conference awarded

February 1 - Local organisers formally propose plenary speaker list

February 1-15 Scientific Committee discuss/approve plenary speakers

March - Book rooms for the conference

March - Draft budget with local University colleagues (note to include conference insurance)

March - Set conference fee levels

March - Conference sponsorship bids (e.g. ESMTB, LMS)

March - Invite plenary speakers

April 1 - Make sure plenary speakers are added to the Communication list

May-June - Set up website

July 1 - Send website link to advisory committee (1 year before the conference)

July 1 - Construct list of societies/ lists to advertise to (e.g. see end of document)

July 15 - Send message to all on database, giving the website, mention the call for minisymposia (but also stress that there will of course be opportunities for individual talk submissions, which will be the majority of presentations)

September 1 - Functionality on website to submit minisymposium proposals, abstracts, register including make payments

September 15 - Send the communication to all of the societies/ contact lists (see below).

September 15 - Send an email to contact list announcing that the call for minisymposia is open

September 15 - Organise the conference team for the event - student helpers etc. (secure availability of key personnel)

November 15 - Invite publishers, stall holders for the conference

November 23 - Send email to say the call for minisymposia closes in a week

December 1 - Minisymposium submission closes

December 1 - Decide levels of financial support available to e.g. students, researchers from certain countries

December 1-15 - The Scientific Committee reviews the minisymposia

December 1-15 - Create a draft programme structure to add to the website

December 15 - Create poster - add it to the website to download and mention this on the announcement of the abstract submission open (below).

January 15 - Announce the successful minisymposia

January 15 - Make sure minisymposia organisers are added to the Communication list

January 15 - Announce abstract submission and registration are open to the Communication list, and the societies above

February 1 - Collect plenary titles and abstracts

February 1 - Have visa letters for overseas delegates in place

February 1 - Invite a senior University figure to open the event

March 15 - Abstract submission closes (it is likely there will be a deadline extension, maybe to April 1)

March 15 -23 Assessment of abstracts by local organisers (note the principle that all good talks on appropriate subjects should be accepted)

March 23 - April 1 - Local organiser propose successful abstracts to Scientific Committee who ratify recommendation

April 1 - Notification of successful abstracts (from the original deadline)

April 15 - Notification of successful abstracts by the “final” deadline

April-May - special case late abstract submissions can be considered

May 1 - Deadline for early (reduced fee) payment

June 1 - Put together a conference pack for delegates

June 1 - Create new Conference Communication list of all registered people and speakers, including minisymposium organisers and plenary speakers (and of course Scientific Committee and local committee members!) - this is to be used in the conference run-up. This must be kept updated as new people register, or some drop out.

June 15 - Deadline for final payment at higher fees (there may be the occasional exceptional case beyond this)

July 1 - Invite session chairs (minisymposium sessions will normally be chaired by their organisers)

July 1 - Create abstract booklet

July 1 - Create final programme and add it to the website

Just before the conference - last check to see any problems that you might have missed (emergency works, transport problems etc.) to try to fix/ warn delegates about

Provisional list of potential places to advertise the conference:

UCL Complex mailing list - complex-mail@ucl.ac.uk

London Mathematical Society - newsletter@lms.ac.uk

European Society for Mathematical and Theoretical Biology - info@esmtb.org

Society for Mathematical Biology - SMBnet@smb.org

Evolution Directory (Evoldir) - brian@helix.biology.mcmaster.ca

Stochastics and biology group (SBG) - sbg@lists.imstat.org

Netherlands Society for Theoretical Biology - boris.schmid@gmail.com

Statistical genetics mailing list (Uoc-statgen) - uoc-statgen@uni-koeln.de

Evolfrance - evolfrance@listes.univ-montp2.fr

GDR - Ecologie Statistique - ecostat@services.cnrs.fr

International Society for Artificial Life - alife-announce@lists.idyll.org

Centre for Biodiversity theory and modelling - gdr-theomodive@services.cnrs.fr

### **Amending the conference principle document**

It may be necessary to amend this document, especially regarding the practical aspects of conference organisation. This is the responsibility of the Scientific Committee. After each MMEE the Local Organising Committee should write a brief evaluation and suggest amendments of the conference principles (when this seems necessary). These suggestions will then be considered by the Scientific Committee. These evaluation documents are specifically intended as a source of inspiration for future organizer, and will be compiled file to a list which is transmitted from one SC to the next.