# **REPORT ON THE POSTER SESSION**

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### 1. The plan.

As an introduction, here is a part of the message that was sent to participants before the meeting:

We hope that we can turn the Poster Session into something more inspiring and creative than is usually seen. We are depending on all of you to make this a success.

We encourage everyone of you to make a poster. Really everyone: no matter if you are a senior researcher having obtained a lot of results already or if you are a beginner still in the process of picking a topic to work on. We believe that this is the best way in which such a large and broad group of mathematicians can communicate their mathematical interests to each other and quickly make contacts.

Please keep in mind that the aim of the posters, beyond the presentation of results, is to introduce ourselves, explain the type of problems we are working on, and to give a context in which others can ask questions. We would also like the posters to contain a photo of you, and some information about yourself.

Please, make your poster up to 60 cm high and 70 cm wide (at most six A4 pages). You can either prepare your poster in advance or you can produce your poster after arrival. But be aware that there is not much time for preparation. We will provide paper, pens and glue; please bring the photo and ideas.

On Thursday evening, there will be a poster preparation workshop. We plan to form small groups according to fields of interest. Each group will make a large poster to serve as a general map of the mathematical area, in which the particular interests of the individual members of the group will appear in more detail. The idea is both to learn about each other's mathematics and to understand relationships between specialities.

On Friday evening, we will formally open the poster session and it will remain open for the rest of the meeting.

Title and abstract. Many of you have already sent a title and a short abstract of a poster. If you have not already done so we ask you to give us this information as soon as possible. Please send the information to Livia Zetto (zetto@ictp.trieste.it), the secretary at ICTP who has been associated with our meeting. This will help us make a pre-plan for how to order the posters and you will make our planning easier by providing us with this information. But we will not be excluding anybody from contributing to the meeting by a poster in the very last minute.

#### 2. Goals and results.

The poster session had several functions, for each participant and for the group as a whole.

One was to reflect on making good communicative posters. We often have to present our work in this form at conferences, we practice giving talks, but have little training in turning our work into an informative 60 cm x 70 cm board. The exercise here was particularly difficult since the posters were meant for non-specialists. At the same time, there was less pressure than at a specialised meeting, so

we had a good opportunity to practice and experiment.

It was important for each participant, not only the speakers, to have an opportunity to expose her work. One effect was to spark contact between participants with close research interests who may not otherwise know of each others work since the talks are meant for and attended by a general audience. Another was for the readers to come in contact with fields far from their own. This consolidates the interdisciplinary aspect of EWM meetings, and enables us to get to know each other mathematically as well as socially.

For the group as a whole, the richness and diversity of all the posters gave both a global and detailed picture of who constitutes EWM. It was quite impressive for each person, whether or not she had contributed a poster, to realize how much we represent.

#### 3. What actually happened.

The evening before the start of the conference, we held a poster preparation meeting. We first made a list of topics on a blackboard, and tried to group participants according to specialities. The idea was to make group posters that would represent rather wide areas. In fact, the specialities were quite spread out and this was difficult to realize. Many had work to do on their personal posters and found an opportunity to improve the graphics with some of the material available. Others discussed their field with their "mathematical neighbors" but the evening was barely enough to share our understanding of the objects we deal with, let alone put it on paper. One team did manage to produce a collective poster.

After the first day of the conference, and a little extra time to finish up our posters, the exhibition was assembled in the main hall. We tried to arrange the posters according to fields. The poster session was officially opened after dinner and continued until the end of the week. Since our lecture room opened into the main hall, there was ample opportunity to see the posters (though maybe not enough time to read them). All in all, 60 posters were presented (for 98 participants).

Most posters gave a combination of personal and mathematical information. There were a few posters on women in mathematics and on educational themes, as well as four panels on mathematicians from an Italian exhibition "Women scientists of the Occident. Two centuries of History."

### 4. What makes a good poster?

The first ingredient of course is the mathematics. Then there are many things we can do to help get it across and to introduce ourselves.

Many of the posters were both informative and pleasant to read. No single recipe came out of the session, not even agreement on what may have been "the best" posters. What did come out, is that it is difficult and takes care and time to express one's work in very few very simple words and images, and that there are several different ways to do it very well. Different approaches work well for different fields of course, depending on the availability of pictures and on the accessibility of the material.

Most posters were based on a paper, or on a shortened and simplified version of the written exposition of a result. Of course, this is the format in which we are used to presenting mathematics, and it is probably the most informative for those who are already interested in a subject and have time to read. But some other ingredients can also attract a wider audience and make it more accessible.

The clarity of the poster was important: that it be written big enough (even by hand) and that the general layout be easy to see from a distance made the posters more accessible.

Some of the successful recipes included graphics, for instance pictures of the author, drawings,

computer-generated illustrations of mathematical objects, a diagram of the mathematical field, with connections to other fields and problems.

A mixture of personal and professional information made them attractive and facilitated contact with the author. One participant told the story, with photographs, of how she had convinced her family to let her come.

Strategies also depended on the level of advancement of the authors. Some posters, especially by Ph.D. students, concentrated on stating a problem, by defining the objects and stating some important properties. One experienced mathematician mentioned her most important result, gave a list of good reference texts in her field, and indicated how to contact her, in a very simple and effective poster.

#### 5. Next time.

Here are a few suggestions to improve on the poster session for the next meetings.

We start with a practical issue, very simple but not so easy to achieve in practice: to have good lighting of the posters. Since the hall at ICTP was not meant as a place to read, the lighting was not sufficient to take a good look at the posters in the evening.

It is good that they be in a place where one naturally spends time between lectures, and where one has room to walk around and chat. It would be better to have more of an opening ceremony, when everyone is there and takes a first look at the posters, as well as an occasion later on to meet with the authors, once participants have had time to read some posters and get interested (since the authors and the participants are the same people, this could involve several shifts where some of the authors stand nearby their poster).

Deciding how to arrange the posters, and in particular trying to gather posters that were "mathematically close", turned out to be a challenge, overcome only with the help of guessing and random decisions. A possible activity for the first evening, as a way for the participants to introduce themselves, would be to try to draw collectively a "map" of the specialities represented at the meeting. It would be interesting both to discover one's neighbours and to understand links between fields that are further away from one's own. This map could then be posted, along with a geographical map showing where participants come from, and also help to lay out the posters.

Given the success of the poster session in Trieste, the effort we had put into our posters, and the richness represented by the whole, the question came up of how we could give the posters a more permanent form and preserve them. One suggestion was to form a booklet with reduced versions of the posters, a sort of "poster session proceedings," another was to put them on the web. For this time, the poster session remained an ephemeral event, some authors took their posters home, the others were carried to Helsinki. Maybe a poster session is essentially an ephemeral form of math presentation, as some of its interest comes from the combination of all the independent contributions. Still, it would be worthwhile to think about ways to make it durable by reflecting it in another medium.