



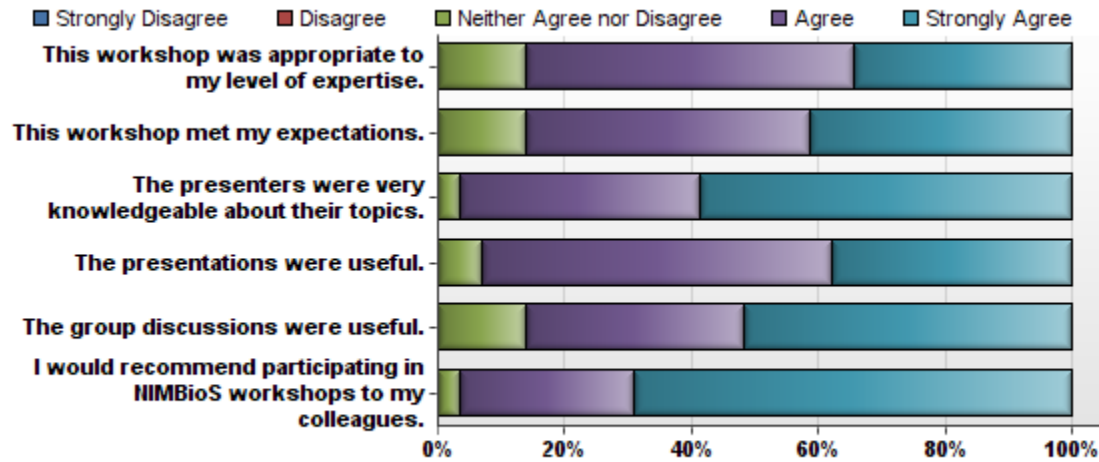
Evaluation Summary Report

Workshop: Information and Entropy in Biological Systems

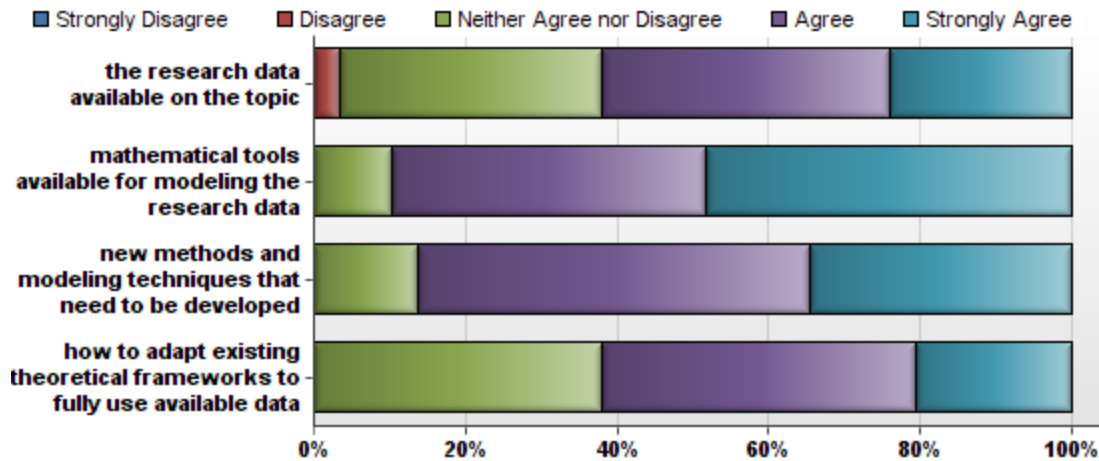
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Please check the appropriate box to indicate your level of agreement with the following statements about this workshop:



As a result of participating in this workshop, I have a better understanding of:



What do you feel was the most useful aspect of the workshop?

The time dedicated to group discussion was highly profitable.

The group discussions were very useful.

Some leading researchers overview the subfield followed by interactive discussions.

I found the mix of group discussions and presentations with ample time for questions to be very useful. Since many different fields were represented everyone had a lot to learn from one another, but also had some common ground to intimate discussions.

The talks during breakfast, lunch, etc. with experts

Getting to know the state of the art, receiving informal feedback on my work, meeting inspiring scientists in related fields

Some of the talks were more relevant than others to my work, but there was usually a nice mix of overview, pedagogy, & examples. This level of talk in combination with extended discussions were nice.

Meeting new potential collaborators, learning about new tools/ideas

I think that seeing examples of how a number of mathematical tools are applied to study biological systems allowed me to form new ideas on how to approach certain problems within my own research. Most of the examples to which I refer came from discussions with other attendees, rather than from the presentations themselves.

The fact that the participants had a wide variety of backgrounds and all of them were very keen to forge ties in this area of research and were open to new ideas.

The (not so) organized discussions in the afternoons.

A few of the overview talks and the informal discussions.

Format was very nice...digestible talks and adequate time for discussion.

To be exposed to so much different research and meet future collaborators.

Understanding the breadth of ways in which information theory can be, and has been, used in biology.

Discussing ideas with quite a different group the one I usually interact with. It fuelled new ideas and perspectives.

There was a lot of time for questions after each talk. This was a useful feature of this workshop.

Meeting up with people who are using similar techniques (MaxEnt) but in different biological contexts.

Group and individual discussions, in which a surprising number of questions I had were answered

Small size and getting to know people on a deeper level.

Meeting potential collaborators

For me it was presentations but I believe this varied from person to person.

Making contacts, getting a deeper understanding of what others are doing.

Listening to and learning from the talks themselves, and listening to the discussions immediately after them.

The exposure to problems in biology that can be approached using mathematical tools with which I am familiar was definitely the most useful aspect.

It was a great workshop! Excellent job done by the organizers! Scientifically, I was very happy with the experience!

Discovering new connections between research areas.

The informal time with some kindred spirits.

What would you change about the workshop?

Having one more day, so that most people could present their work.

I would perhaps have one less talk per day to increase time for group discussion.

Perhaps some slightly more organized 'note-taking' or recording of potential research directions arising during discussions.

I think the level of the workshop was too high for people with a background in biology, I think the presenters could have tried a bit more to reach that audience as well.

A little more organizational structure would have been nice. Discussions usually centered around people who had just presented, and involved audience members getting clarification on aspects of the presentations rather than more synthesis-type discussions about next steps.

I perhaps would have taken some emphasis off ecology, which is mentioned in two of the five goals of the workshop but seemed to dominate the talks and discussions.

It probably could have used a bit more structure to the time that was devoted to discussion. The discussions were actually fantastic but it was hard to see what might ultimately come out of them.

Have more biological examples and less pure 'theory' talks.

Maybe have added a few more presentations

Really nothing. It was superbly organized and the atmosphere was great.

To organize the afternoon discussion with clear goals and less ambiguous topics. For instance, the first afternoon, the organizers were like, you can join for more discussion about his/her talk or you can do whatever you want.

More focus on synergy between different areas. This is difficult! Bring together too many/too disparate areas and people will often simply stay in their own field, especially when not everyone makes an effort to find a common language. Perhaps focusing on specific questions would have helped, or a more directed set of discussions, rather than a free-for-all (although that can be useful too).

Post information about the talks a bit earlier in advance

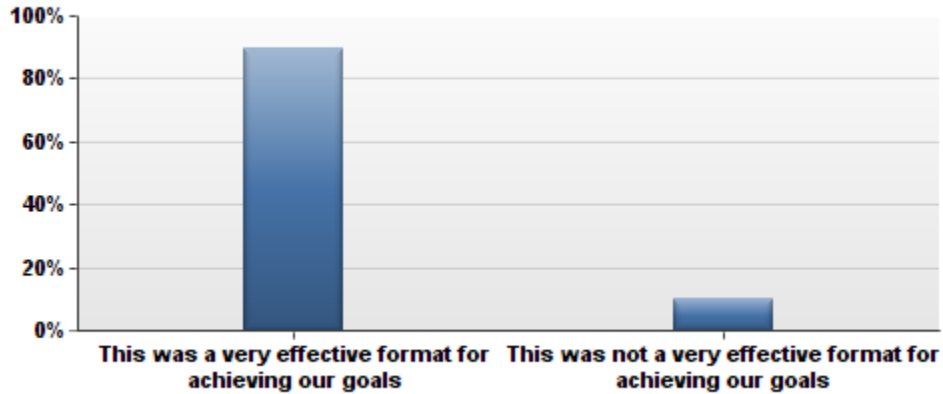
I might have scheduled the workshop so that most of the talks and shorter discussions after each talk were completed earlier in the workshop, so that there was time to see everyone's perspective before breaking down into more lengthy discussions. I think this would have facilitated making connections across different topics at the workshop. Some of that probably managed to occur anyway, but I think more could have happened had a different structure been used. Within that kind of structure, perhaps taking more time as a group to decide on the topics of the longer breakout discussions would have been useful also. Ideas for integration could have been discussed as a group to some degree.

I would have the discussion groups a bit more structured. For example, tentative workshop discussion groups could be planned when the schedule is constructed. Of course there should be some flexibility, but a more structured approach would allow participants to prepare better.

Slightly longer, so more time for discussions.

I would have given a longer time to some participants who had something in real depth to say. The small technical talks on little techniques might have worked better as poster presentations.

How do you feel about the format of the workshop?



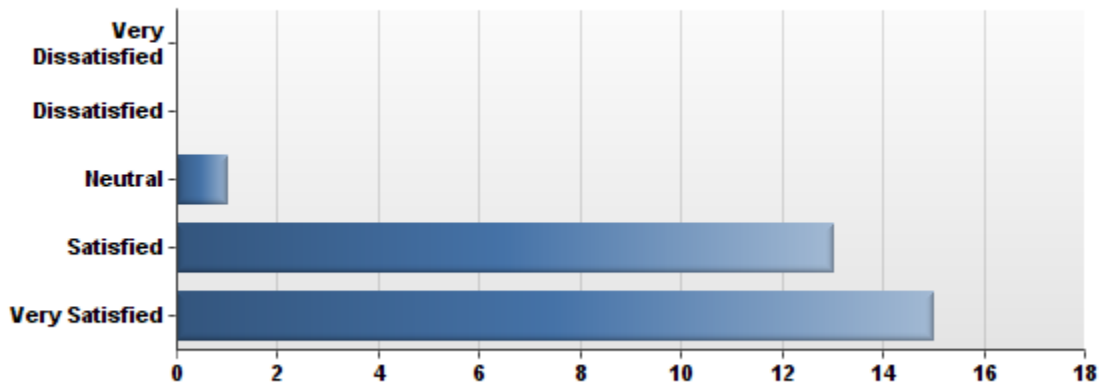
The workshop format would have been more effective if:

Longer: three days wasn't enough

The discussions had been more focused at bridging the different disciplines/approaches.

If the background and/or publications of the participants had been shared ahead of time or at the beginning of the workshop, it wouldn't have depended upon casual conversations to find some deep common interests.

How satisfied were you with the opportunities provided during workshop presentations and discussions to ask questions and/or make comments?



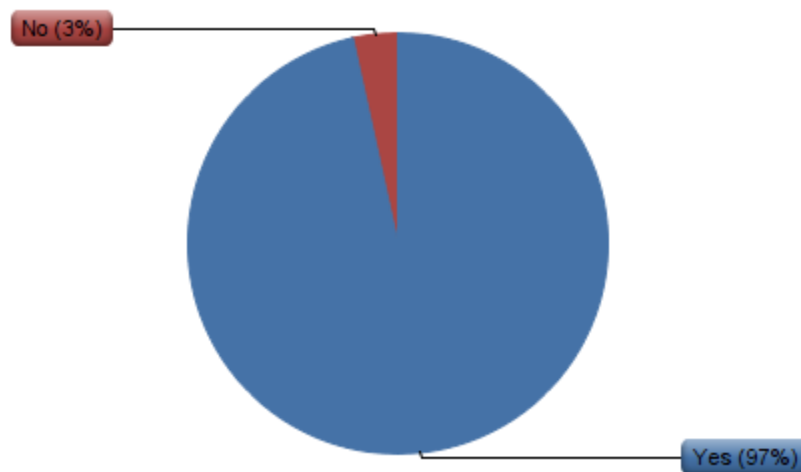
Please indicate any suggestions you have for facilitating communication among participants during the workshop:

*The large discussions were very nice, but somehow I wanted more time for individual discussions (this did occur as well, but I didn't get to go over *everything* I wanted to)*

There was lots of time left for discussion (both structured and unstructured), which was great.

Some people liked interrupting a lot with what seemed to be quite personal issues of little interest to the main audience - perhaps to show off! Perhaps chairing could have been more forceful in this regard.

Do you feel participating in the workshop helped you better understand the research going on in disciplines other than your own on the workshop's topic?



Comments:

The workshop is well organized, and the discussions after the talks are very informative and useful.

Some of the talks were a bit too technical to understand in detail.

As a result of the workshop I gained a broader understanding of how Entropy based models are used in other sub disciplines.

Some work was over my head, but this was a challenging and well-put together workshop.

Absolutely. There was a really excellent and well-thought out mixture of disciplines, with no single scientific discipline dominating over the others.

The workshop brought quite a diverse group of people together that would not normally talk and that was definitely one of the exciting things about the meeting. As a result of the meeting there are two potential future collaboration opportunities I hope to follow up on.

This workshop was very informative and the discussions were the most useful.

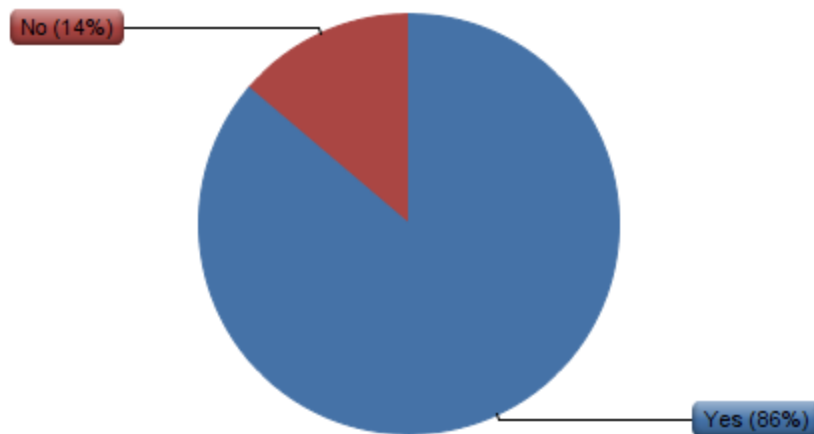
Useful insights into using info theory in an evolutionary context.

This was probably the most useful aspect of the workshop.

I liked the organization, the organizers did a great job at picking participants.

I felt that there were some exceptionally good presenters and some nearly awful. I think that choices were made based upon the collaborations of the organizer rather than trying to really address the breadth of the subject that was articulated in the abstract for the workshop. The international participants were wonderful to interact with and thus I applaud the director for choosing such a heterogeneous and interesting group and NIMBioS for supporting the participation of individuals from Australia, Netherlands, Italy, Canada, Germany, India, etc.

Do you feel the workshop made adequate progress toward finding a common language across disciplines for research on the workshop's topic?



Comments:

The main focus being ecology, we did not approach much other disciplines, which was fairly clear from the beginning, so this is not an issue.

More discussion and structure would have been helpful. We didn't really discuss synthesis or next steps.

One cannot expect too much from just a few days' conversation. I feel that at the end of the workshop there may still have been some residual disconnect between the very biological and the very mathematical participants.

A greater emphasis on evolutionary applications would have been appreciated.

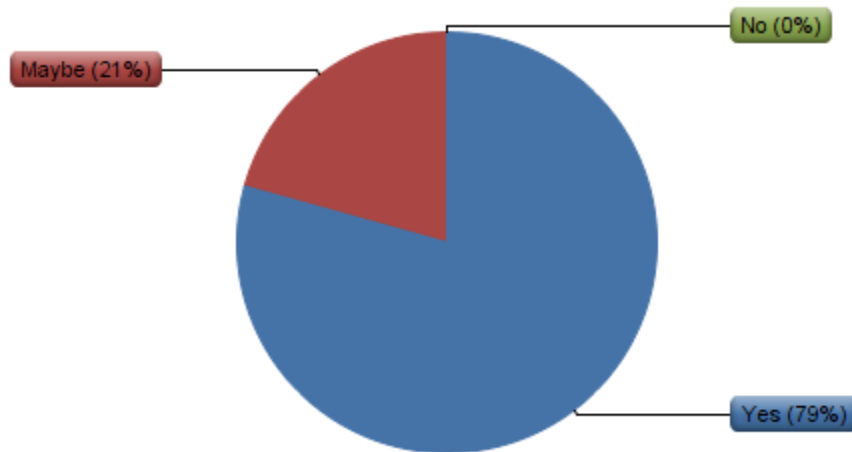
There were people from different research communities but in the end we figured out the meaning of the jargon of each other's.

Some people really made an effort to explain their own language and concepts to non-experts (as the guidelines for speakers had requested) while others made no attempt at all.

The best one can hope for is to make people aware of one another's language, and I think it did well at that.

Yes, primarily because there was a real focus on small group interactions lasting long enough to move into some depth and because the leaders of several groups were exceptionally good.

Do you feel that the exchange of ideas that took place during the workshop will influence your future research?



Comments:

I was able to talk with a number of other researchers. We will see if collaborations result.

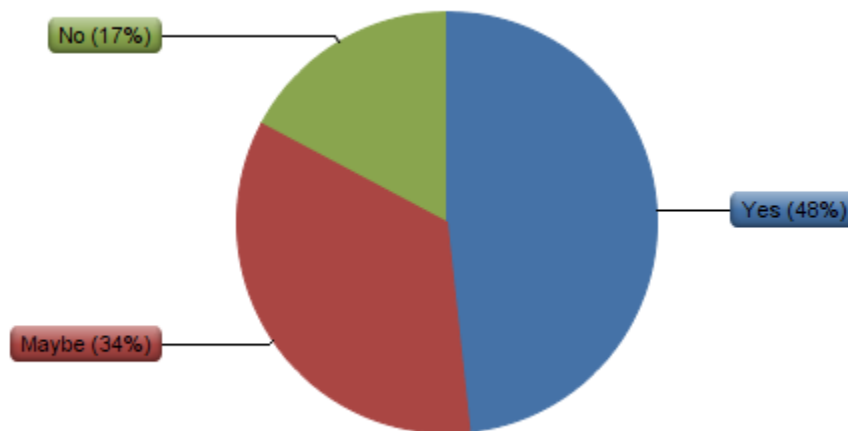
This workshop was nicely spaced and there was a lot of time for discussion.

It has opened new avenues to modelling food webs

I have already developed several lines of work that resulted from participation in the workshop.

I learned at least three things that will immediately make a difference in my research.

Did you develop plans for collaborative research with other workshop participants with whom you had not previously collaborated?



Comments:

It was good to have some serious discussions with a couple of participants.

There are potential plans to collaborate with an ecologists and biogeologists that I had not met prior to the meeting.

Applying Maximum Entropy and maximum entropy production to food webs in collaboration with Katharina Brinck

Four participants and I are exchanging manuscripts about mutual interests, At least one participant and I plan on collaborating.

Please use this space for any additional comments:

One central aspect of the workshop was the use of entropy in biology. I think that it became readily apparent that instead of unifying the different ways that people use entropy, that it is useful to be aware of the utility of many different viewpoints. I think this was a takeaway message, not narrowing down the scope of applicability of the concepts of information and entropy, rather embracing their range of applicability.

A big thank you for the excellent organization of the workshop and the inspiring time - I learned very very much and am sure that these three days will have a major impact on my future work. many many thanks for this!

I really enjoyed this workshop and I believe most of the participants did too, due largely to the efficient and unobtrusive help provided by the NIMBioS staff. It was nice how they faded into the background but were there when needed.

Thanks for organizing - a working group could be useful for specific projects

Thanks for the great workshop!

Thanks so much to the NIMBioS staff and the workshop organizers! I can't recommend NIMBioS highly enough.

Great workshop. Great group of people. Thank you for this opportunity to meet my fellow scientists working in mathematical biology.

Thanks for the hospitality

It would have been far better if the talks were packed in to the first day or day and a half, so that everyone was familiar with all of the various topics presented, and then better organized discussions and working groups followed for the remaining day and a half.

This was an extremely useful workshop for me. My only suggestion on timing would be to allow a bit more time for discussion after the talks (could be done by starting a bit earlier). It might have helped to organize a joint dinner on the first or second day.

Again, I think the organizers did a fantastic job and put together a great workshop. I want to thank them!