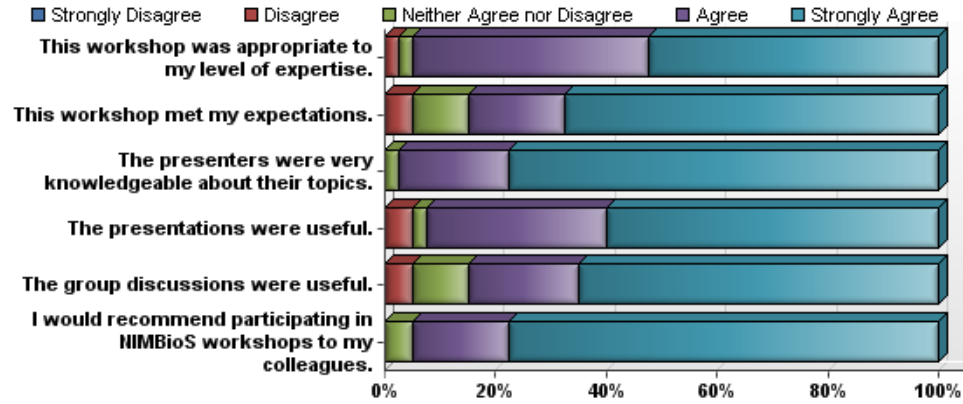


1. Please check the appropriate box to indicate your level of agreement with the following statements about this workshop:



2. Comments about accommodations:

Text Response

Excellent.

excellent job

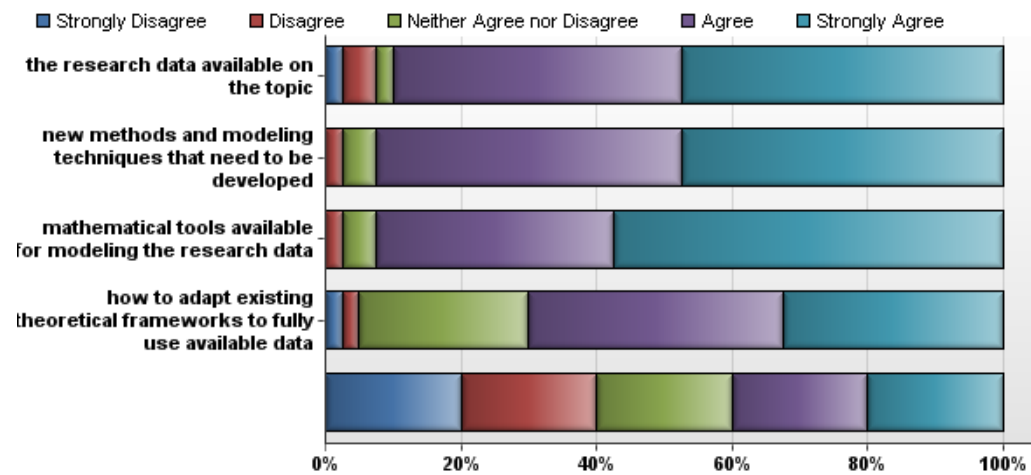
It was great! It was just a little chilly in the rooms.

wonderful!

Quality of coffee (please make it stronger) could be improved, but in general everything was great. Keep temperature in rooms to a appropriate level (we often had to put on jackets).

To tell you the truth, there was room for improvement as far as coffee is concerned!

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



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

Text Response

The drive by the organizers to have a working draft of a document on our topic by the end of the 3-day workshop - we had productive and informative discussions, but those discussions more importantly translated into a document that hopefully will change the field.

many were useful, e.g., the attempts to come to a common terminology, the chance to discuss with experts, the debates, ...

both talks and workgroups

Meeting and talking with some very smart people interested in similar problems. Awesome.

Demonstrating the richness of the existing data on sequential behaviors in animal communication.

Interdisciplinary discussions and collaborations -- participants openness to such collaborations, which indicated excellent selection of participants!

cross-disciplinary discussions

Meeting researchers with diverse interests and expertise.

Writing a review paper with the other participants

The field trip was surprisingly useful. This was where I started more in-depth conversations that led to some collaboration.

Bring people with different background together, provide a platform for researchers to form collaborations across disciplines.

The collaborative paper writing gave us a specific focused project that caused us to engage with one another fully and in an interdisciplinary way.

Active discussion and collaborative work in the structure group.

meeting people whose name I was familiar with, learning about the state of the field and developing new collaborations

The talks were useful, and some of the group discussions were informative. More opportunities for interactions among the breakout groups might have been helpful.

Interdisciplinary feed back and an excellent overview of what it has been done on the field and what it needs to be done and improved

The opportunity for group discussion immediately following a small number of talks (2-3) was enormously helpful. It provided enough fodder for discussion as well kept things localised, but was not so much to be overwhelming for a single discussion.

Get the chance to know about other researchers work on the subject and discuss options to analyze and present data on animal vocal sequences.

The wealth of expertise on a variety of animals as well as mathematical techniques. Having a lot of focused but open-ended meeting times was great for thinking of new research.

Working closely in the small groups - was able to get to know each other's perspectives better than in the large group (where not everyone will be willing / able to speak up).

A wide range of topics were presented and adequate time was set aside for talking with other participants.

The talks and large group discussions, as well as opportunities to meet and talk informally with other participants.

Working together on the review paper - a concrete product and task -- was quite satisfying and gave an unusual sense of purpose to the workshop, which might otherwise have been a bit vague in terms of purpose and intended output. Trying to do a job together was more interesting to me than just trying to "exchange" and "build collaboration" with no specific task in mind. I even think the paper, when finished, may be of some use outside the workshop group! ;)

The multidisciplinary aspect of the workshop was the most valuable for me.

Developing a common knowledge across a variety of scientists that work on similar problems yet rarely communicate with each other directly.

group discussion

The diversity of disciplines as well as the diversity of expertise (senior scientists to graduate students).

meeting new collaborators

Discussion within the subgroup where participants are from different fields.

Meeting scientists from other disciplines

From my perspective, the most useful aspect was bringing individuals from various disciplines to the same place where we could interact. The most useful interactions occurred during breaks and meals because those were the times when discussions could be customized based on the common interests of people involved.

To meet other people from different disciplines, but also to meet people from the same field talking about aspects that are not typically discussed. Bring people together from disciplines that do not typically work together.

The diversity of participants, the talks, the informal conversations.

strong interdisciplinarity and excellent organization of the talks to cover a large and representative range of topics

Hearing about a range of study species

The breakout sessions and the lunchtime/dinnertime discussions

I think it was most useful to discuss our topics in the groups and try to come up with a document. I really feel the pressure from the organizers to produce something by the end of the workshop was a good motivator.

Getting to talk to the other participants. I wish there was more time to actually meet with other participants and share ideas.

5. What would you change about the workshop?

Text Response

The workshop plan would have benefited enormously by having presenters stick to a 15-minute time frame with 5-min question period each - too many species went too far beyond their time slots. The result was that group discussion suffered simply by there being less of it possible.

nothing, maybe I will just make it a day longer and devote 2-4 hours to develop collaborations among participants

Eliminate the focus of writing a paper and instead focus on research discussions in small groups. Longer talks and perhaps some tutorials.

I would have devoted more time to computational ideas and would also invite brain scientists who work on sequence processing (e.g., basal ganglia circuits).

Less group editing -- that took a lot of time and was tedious.

more time for one on one discussions and collaboration

Not much. It ran very well.

Facilitate more exchange of data and methodologies

In retrospect, some of the discussions were prerequisites for others and so having these discussions occurring independently and simultaneously was difficult. For example, the overview discussion needed to happen before all the others. Similarly, topics like meaning, units, and structure needed to be understood collectively before discussing evolution. Two things that would have been useful if we had more time would have been 1) a consensus document outlining how different disciplines and sub-disciplines used various terms, and 2) a document summarizing the types of vocalization data that exist and that people are willing to share.

More presentations and discussions on current issues, difficulties in this research.

I think we needed 4 days to work rather than 3. We could have made more progress with an extra day together.

Discussion across groups would be helpful to cover broader aspects of animal communication study.

More opportunities for interactions among the breakout groups might have been helpful. It would have been useful to have slightly more "down time" to interact informally with other workshop participants, which would likely lead to more opportunities to collaborate.

The dynamic of the last day and the pressured to make a product out of the meeting. There was not enough opportunity to talk to other people.

There seemed to an over-emphasis on the resulting manuscript, such that - half of the workshop was spent 'restricted' to our small groups actually WRITING (something many of us had never experienced at a workshop), preventing discussion with others on potential collaborations, questions, etc. I understand the desire to have a resulting publication, and the challenge of coordinating with 30+ authors for a manuscript from a distance, but there was minimal discussion about alternative options, e.g. each group produces a paper/chapter for a larger, compiled volume. In such case, more time could have been allocated for talks or group work with varied composition.

It would have been nice to have some time for people to come together with datasets and models to try and make new research happen on the spot.

I wish the biology presentations had come before the computational presentations. It seemed like the tools were being presented without understanding of the types of biological questions they might (or might not) be applied to. Some opportunities to interact more with folks outside of our small group would have been useful to - maybe some 'strategic matchmaking' (matching up biologists and computational folks with overlapping interests?)

I would have liked to see more presentations on bird song.

Instead of drafting a comprehensive review article, I might have rather spent the time in the work-groups on some more interactive activities, such as longer, more tutorial-style presentations or real-time data analysis.

Please see earlier comments about mathematical/computational/statistical talks.

The event far exceeded my expectations.

Having a session in which participants (who aren't one of the speakers) briefly present some of the problems that they are facing in their research.

maybe more talks

More time given to synthesis towards the end.

focus on writing a position statement was overly ambitious and likely will not result in a quality publication given time constraints. Focus should instead be on the sharing of ideas and new areas of research.

Make the time after presentation and coffee break longer so that participants can have time to exchange ideas fully

Invite a more representative crowd for the topic

I would increase the opportunities for interaction and enable participants to self-organize around specific topics/problems that they are interested in addressing.

The aim to write a review paper was an interesting experience. However, I would rather have groups be built up and discuss specific points and then see where interests groups emerge. They then may start to write publications together or make constructive plans for collaborations.

I'm not sure I would highlight the production of a journal submission as the main focus of the workshop again. Although, perhaps if I'd chosen to work on the Overview section of the manuscript, I would have gained more from the experience because I would have been able to interact with more people attending the conference.

I would shorten a bit the days and add one or two

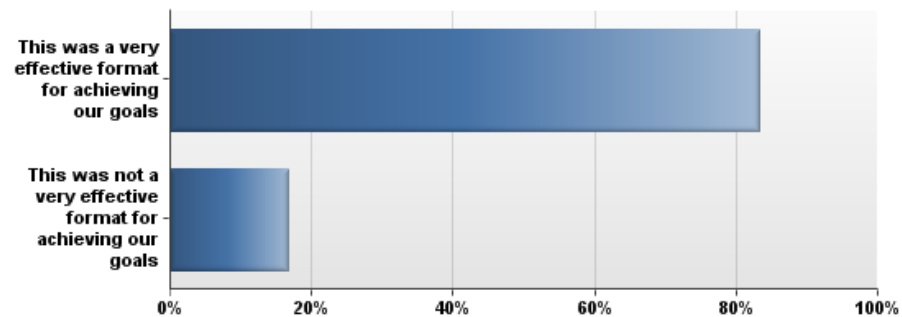
Less emphasis on producing a single publication from it. Allow participants to splinter off and focus on subtopics of interest.

Really, nothing.

Perhaps give it another day, when we were trying to produce something. Also the selection of talks may have been a bit random and it seemed that some taxa was over-represented than others (for instance no proper songbird talks about natural communication in songbirds, whereas there were three talks on dolphins)..

Allow more time for participants to mingle with each other. I think this would have lead to more collaborations and more sharing of ideas. I felt like more discussion went on over lunch than during the actual discussion sessions. Also, I would warn future participants to keep in mind their audience when constructing their presentations. We had such a diverse group and I felt like the presentations were geared towards experts in the field when we are not all experts in every field.

6. How do you feel about the format of the workshop?



7. The workshop format would have been more effective if:

Text Response

To have less people involved in producing the paper and give opportunity for more integration and to really advanced the field and try to get an agreement in the topics that cause controversy.

If the main goal of the workshop was to draft a review article, then the format was effective. However, I feel that I personally could have gotten more out of the workshop, while there, if the conference-style talks had been supplemented by other activities, such as interactive tutorials or mini-projects, instead of the writing work-groups.

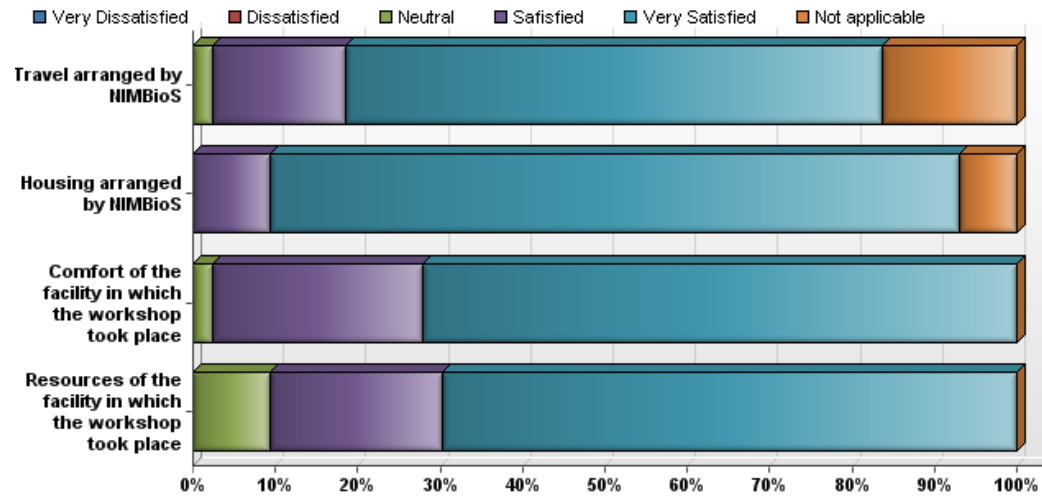
see previous comment

more of the key people who published in the field had been invited

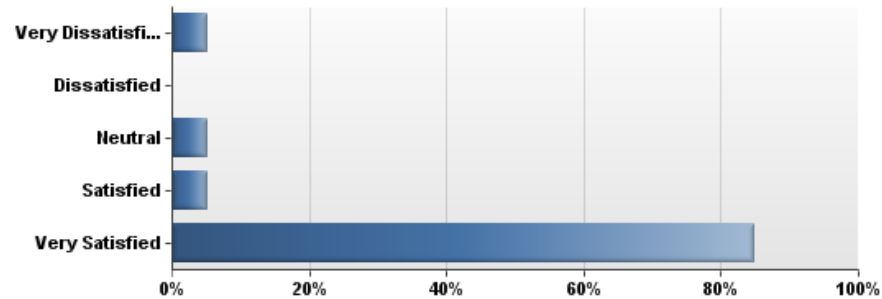
it focused more on the goal of promoting collaborative projects and working toward providing more new analysis techniques and integration of ongoing efforts.

As stated before, less emphasis had been placed on producing a single publication as a product.

8. Please indicate your level of satisfaction with the workshop accommodations:



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



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

Text Response

I think I should have offered to give a tutorial on computational methods.

Full sessions were very open and I felt everyone felt free to discuss and question the speakers and discuss among themselves.

I think that perhaps establishing the working groups even earlier in the program would have allowed us to focus even sooner. I know you sent out an email about choosing our groups, but I think we didn't completely know what that meant until we got there.

Each workshop has its own model and goals, and perhaps the primary objective here was the manuscript, but as previously mentioned, more group discussion about what each person wanted to gain from their time might have elucidated alternative ways to spend the days rather than half invested in preparing a manuscript.

I did not experience any communication problems.

This workshop focused on the production of a manuscript. I think that it's possible that creating a shared product or focus on specific projects might be a good way to move forward, but best would be if it allowed more interaction across groups. Might there be a way to have subgroups that changed in composition over the conference?

Maybe include time for poster presentations

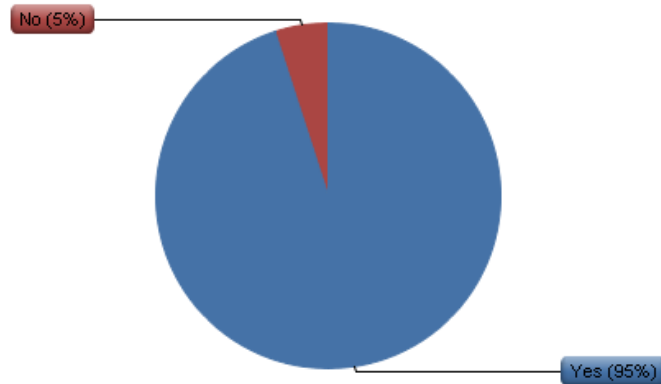
Longer discussion sections for one. Also, perhaps have participants prepare questions that they might have for their audience. For example, if a biologist is uncertain about their models perhaps at the end of their presentation they can open it up for a discussion about appropriate models. I think participants should be encouraged to come sharing what they DON'T know. We all know everyone is knowledgeable about their own expertise, but the point of the workshop was synthesis. I think future workshops should focus on the questions we all have so that we can teach and inform each other.

For facilitating communication, one-on-one interactions are key in my opinion. These happen when people are able to freely move about; but in these circumstances, people will often approach and talk to others they already know or with whom they have some connection. Alternatively, one-one conversations will also occur if people are forced into haphazardly paired interactions. For example, when sitting next to someone on a bus on a long trip. For graduate students like myself, speaking with other students in our own fields is the easiest and most comforting thing to do (because what we all know and understand seems adequate). However, that's obviously not how you learn new things. Talking with professors with more and different knowledge has the potential to be the most rewarding interaction, but also the most intimidating and challenging. For instance, depending on how the conversation goes with a modeling expert, I can gain some profound insight and feeling like I need to read more about X or come out of it feeling discouraged by barriers to communication stemming from how little I understand, say, the math underlying a particular model. In part, this is because one can feel like they are wasting the person's time in having them explain something very basic to them. Fortunately, this worry is greatly reduced when one is not competing with others for the person's valuable time. I think this is why the field trip was so useful for me. My overall point is that I think any situation that encourages one-on-one conversations between faculty and graduate students tends to be most valuable for graduate students.

I think the size and varied composition of the group made for pretty effective discussion. You did have to be a bit bold and persistent to speak much, but that's a skill any academic at postgrad level or above needs to have, so it's probably OK -- if there were a way to solicit more from quieter people it might be nice. I also have the idea that organizers would have (and maybe did) steer things enough to keep conversation from being dominated by certain points of view of personalities.

11. 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?

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?



12. Comments:

Text Response

I have learned things I didn't know about the state of the art in the ethology of animal communication.

It will be very helpful to people with math/computing background to contribute in this research if the data processing difficulties of current research, mathematical/computational tools needed are addressed more in the workshop.

This was an excellent experience that will add value to my research for years to come. Simply being at the workshop gave me at least 2 new ideas for papers and research projects. The connections I made in the short period of time will be very helpful in my research.

There was a fantastic breadth of researchers across taxa and mathematical models. Very incredible.

I was attending as a statistician/computational person, and I found that the talks "within my discipline" -- the more technical and mathematical/statistical talks -- were not as useful as they might have been as a means to initiate biologist unfamiliar with the relevant methods into the use and potential applications of the methods. Even I found most of them hard to follow and short on motivation...and I already knew quite a lot about most all of the methods discussed. I would have appreciated a more tutorial style, less focused on results of individual studies and more focused on methods and their potential applications.

yes, e.g. on the use of information theory in different aspects of communication

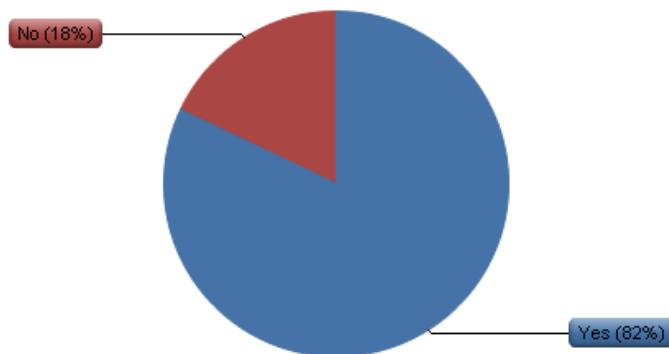
The diversity of speakers and participants was a clear strength of this workshop. I have already re-designed a project on which I was working based on the workshop experience.

I especially enjoyed the presentations on the modeling tools.

in particular, I learned a lot about information theory (as it applies to many aspects of life sciences), as well as linguistics, algorithm development etc...

I really valued getting to know about the research across disciplines. My only critique is that presenters be more sensitive to their diverse audience. Presenters should try and make their presentations accessible to as much of their audience as possible. Really try to simplify where possible.

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



14. Comments:

Text Response

Interesting question. At least the problem was clearly raised.

I would really say yes and no. The time devoted to new mathematical and computational ideas was not nearly enough to make a real impression on the ethologists who work in the field.

Some terminology still needs to be ironed out, but progress was made.

There were some moments when people thought they were using inconsistent terminology, but they were equivalent. I think it would have helped a few times to have people flesh out what those equivalencies were.

I wish there were an intermediate answer possible for this question. I definitely think that we saw ways in which we are talking past each other, and I think that's progress in itself (recognizing the problem is progress, I mean). In the short time span, I'm not sure we made much progress in resolving the problem, but maybe we all will be more careful in our use of language when talking to folks across disciplines now? It's also possible that the resulting paper can be a part of that progress towards better communication.

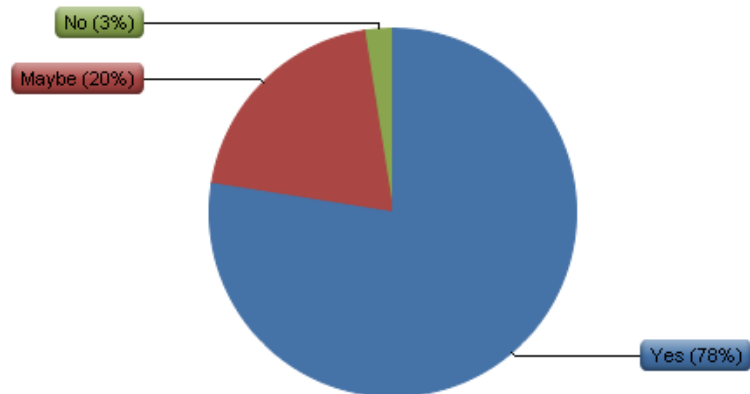
I found everyone kind, approachable and easy to talk with (and argue pleasantly with as appropriate!)

I think this is asked too much from a 3 day workshop. It is a start to make people realising from different disciplines that we have to find a common level to bring the fields together.

This is a tall order; we made progress. Needless to say, there's more to do.

Not really "No," but more "I don't know."

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



16. Comments:

Text Response

Wish we had had more time for small research-oriented discussions.

absolutely

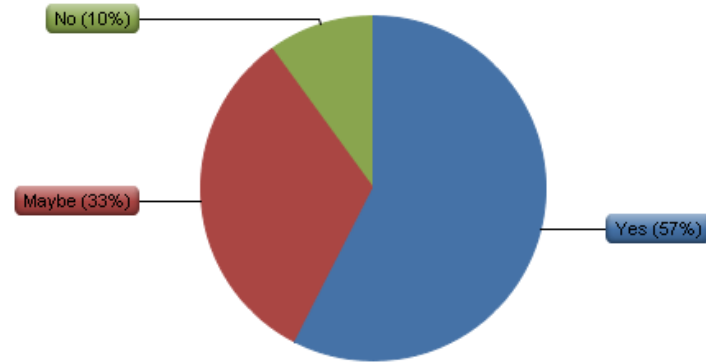
No question there. Already formulating new ideas / approaches.

It already has. I also made some contacts at the workshop that I hope will be lasting. I believe I found some new collaborators too. I have already accessed new tools due to the workshop.

I may have found a colleague with whom I can collaborate.

I was able to incorporate ideas that others shared as well as get valuable information regarding how to analyze my data.

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



18. Comments:

Text Response

Very much so!

To me this was a strong benefit

Having some time in the workshop to have animal researchers give a sense of what their data was like would have helped the modelers see how it could be used, and then they could have interfaced a bit more quickly about how to move forward.

Maybe - there was VERY little time for this, so I feel as if I've made some interesting contacts that could possibly pan out.

I hope I will be in further touch with other participants, but no firm plans or close connections that didn't exist before...just potential, I guess.

See previous comment.

I have decided to collaborate with a graduate student at UCSD, who is studying dolphin vocalizations. I will be sharing my marmoset data with him so that we can get a better handle on various modeling techniques as well as analyze my data in a different way.

19. Please use this space for any additional comments:

Text Response

Awesome!

I would like to thank NimBIOS for funding this workshop. It brought together a wide variety of biological and analytical scientists with interests in animal communication. One of the things that I found particularly satisfying was watching the number of new connections that were formed. While the paper we produce from this workshop has a very good chance of having a high impact, I think that the bridges built during the workshop will have an even broader impact on the community. Thank you for funding these types of activities - Marie Roch

A very useful workshop. Arik, Marie, and Dan are extremely gifted coordinators.

It was a great workshop!

Great job by the organizers of this workshop.

This really was a fabulous experience. Thank you!

It was a wonderful workshop. Thank you so much!

Great experience. Thanks.

Thanks for an overall great workshop!

The workshop was extremely productive and stimulating. Marie, Dan and Arik did a fabulous job with the organization.

Thanks NimBios for offering the good opportunity to facilitate the research on our fields.

It was a very good workshop that initiated several collaborations and exchange of ideas between many different people. Very important for the advance of the field in communication to bring biologists, mathematicians, linguists, etc... empirical people and theoreticians from all over the world together.

I have never had a smoother conference in terms of travel, accommodations, and venue. I didn't get to see much of Knoxville, but I did participate in an off-site field trip. The hotel was very well located -- close to multiple restaurants and the conference facility. The restaurants made evening interactions much more likely and relaxed. THANK YOU for this excellent opportunity.

I was especially impressed with the organizers, the NIMBioS staff and the participants. I learned a great deal and came away with a much better appreciation of NIMBioS and its mission. I hope to be able to participate in future NIMBioS workshops.

Thank you for the wonderful opportunity!