

**2001 SDM Conference Planning Committee
Structural Dynamics TC Report
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October 17, 2000**

Part A: General Information

This was the first year to process abstract submittal and review as well as session organization electronically for the SDM Conference. Naturally, there had been a few problems and shortcomings. However, the new process went well in general thanks to the time and effort expended by abstract reviewers, many SDTC members, and AIAA technical staffs. Mr. Paul Taylor, a conference subcommittee chair, provided many suggestions throughout the process. Dr. Dale Pitt, who will be a SDTC SDM conference representative next year, jump-started this task by attending the fall planning meeting and organizing the sessions.

The following table includes the tentative abstract review and session information for the 2001 conference.

TCs	No. of sessions	No. of reviewed	No. of accepted	No. of rejected	Acceptance ratio, %	Cut-off score
DYN	22	146	132	14	90	2.5
STR	20	-	99	-	-	-
MAT	12	65	65	0	100	-
GSC	9	55	54	1	98	2
MDO	8	40	40	0	100	-
NDA	8	51	50	1	98	2
ASF	7	40	39	1	98	-
DE	1	-	-	-	-	-
Student	1	-	-	-	-	-
Total	88	496	479	17	97	-

The following table shows the tentative layout for the structural dynamics sessions:

Day	AM/PM	Session Title	No. of Papers
Monday	AM	Unsteady Aerodynamics	6
		Active Control I	5
		Dynamics I	6
	PM	Limit Cycle Oscillations	7
		Dynamics II	7
		Space Vehicle Dynamics	7
		Active Control II	7
Tuesday	AM	Aeroelasticity I	6
		Modal Test & Analysis	6
		Impact Dynamics	6
	PM	Aeroelasticity II	6

		Vibration & Vibration Isolation	6
		Dynamics III	7
Wednesday	AM	Computational Aeroelasticity	5
		Composite Structural Dynamics	5
		Rotorcraft Dynamics	5
	PM	Reduced Order Aeroelastic Models	7
		System Identification	6
		Dynamics III	6
Thursday	AM	Aeroelasticity III	5
		Nonlinear Structural Dynamics	5
		Buffet Dynamics	6

Appendices A and B include the SDTC reviewer information and abstract average ratings for the 2001 SDM Conference, respectively. Detailed information was compiled during the abstract review process in three Microsoft Excel files and will be provided to the next year's conference representatives.

Part B: Lessons Learned and Recommendations

The new electronic abstract review process is a great tool that can significantly reduce the time and effort, especially for the SDTC which has the most number of papers among SDM TCs. However, it can create more problems and require more time for the SDTC if the system does not work as expected. In this first year of implementation, as predicted earlier, the new process took significantly more time than in the past for the SDTC. Due to a large number of papers, I think SDTC suffered more than any other TCs. Overall, the current electronic abstract review process may work well with the smaller number of abstracts, but there are a few critical issues when dealing with the large number of abstracts. The following is a list of issues which should be corrected or improved so that we can have a more efficient process next year.

- 1) System consistency and reliability: This is probably the most serious issue. Depending on how we access (web paths) and/or who we are (authors, reviewers, organizers, etc.), we may access a different list. For example, authors could access their abstracts, but I (as an organizer) could not access some of them. Or, I could access them in one path and could not access some of them in another path. In some instances, system emails gave the wrong abstract numbers or they were not sent to me at all. I found many other relevant problems after sending out over a hundred individual emails to all suspected abstracts' authors. ==> The system software should be reviewed by the experienced Q&A software engineer as we normally do (and required) for aerospace applications software.
- 2) Author's capability: I think we assumed (rightly or wrongly) that our authors are experts in using (and familiar with) the computer, internet, and AIAA system. I found that many of them did not read the Users' Guide and/or made it worse by taking wrong actions when they faced a problem. For example, when they had a problem of uploading the abstracts, they were not sure what to do and tried to start from the beginning instead

of reloading them. It is one of the reasons why we had over a hundred ghost or duplicate abstracts. ==> We need to include a simple list of what they should not do and a cheat sheet (or contingency plan) to describe what they should do if they face a problem, as part of the Users' Guide. We also need to ask them to check their information and abstracts on the web after they completed the process.

3) System technical issue: I am not familiar with the specific distiller (converting software) used by the AIAA, but most of them available on the market have certain limitations. For example, most distillers have problems with the Microsoft Word file containing both portrait and landscape formats. ==> We need to include specific limitations in the Users' Guide. It is also desirable to have separate websites for distiller and abstract submission so that authors can verify their abstracts before submitting them, possibly reducing significant number of mishaps. In addition, there must be a limitation on the size of the abstract because a few large abstracts place too much burden on the system for AIAA, reviewers, and organizers as well as on their time.

4) Cross-check: The SDTC normally has over 300 authors/co-authors (for about 150 abstracts), 70 reviewers, and 50 chairs/co-chairs. Several overlaps happen every year during abstract review assignment and session organization. In addition, many of them are also involved with other TCs - which makes it very difficult (or impossible) to cross check. Especially, if there happened to be an overlap not in the same session, but in the different sessions at the same time slot. ==> The use of the computer will make it easier to cross-check just last names (because first names are often used differently) and the system can easily generate a warning message. During abstract review assignment, the system should check author/co-authors vs. reviewers. During session organization, the system should check author/co-authors vs. chair/co-chair in the same session, and also check author/co-authors/chair/co-chair vs. those in other sessions at the same time slot.

5) Responsibility: When authors have certain problems, it is not clear who is responsible and whom they have to contact. For example, if authors have a system problem or have to submit paper copies, it is not clear who has to support/help them. ==> We need to clearly define the responsibility of AIAA tech staffs, conference general/technical chairs, and TC organizers, and include this information in the Users' Guide.

6) System cutoff: It is not clear when and what authors can do after they submit their abstracts. Some authors kept changing their abstracts (some authors even submitted their abstracts for the first time) even after the abstract review started. In addition, a reviewer (who was delegated by the original reviewer for some of his abstracts) changed his name, resulting in a confusion. ==> This information should be clearly defined and described in the Users' Guide & Reviewers' Guide, and implemented in the system. In addition, entries without abstracts after the cutoff date should be removed from the system.

7) Young Professional Presentation (YPP): Some authors submitted their abstracts under the YPP, possibly assuming it for the student paper. However, the SDM conference does not have a YPP venue. ==> The YPP option should be removed from the SDM conference website.

8) Session names: In the past, we asked reviewers to suggest potential session names for each abstract among the session names provided, then the TC organizer makes a final decision based on the input. The current electronic process does not have this option. Although reviewers were requested by an email to provide the session names in the comment box, many of them did not. ==> We need a session name input option so that reviewers can selection a couple of them from the potential session name list.

9) Comments: Although reviewers were requested by an email to provide comments, many of them did not. ==> We need to include the following statements on top of the comment box: "Comments: Provide a brief explanation of your rating, particularly if you propose to decline the paper (e.g. if the final rating is lower than TBD). Also, if you think that the paper would be better suited for other venues, please indicate so in your comments."

10) Review rating: Reviewers can give a rating from 1 to 5 (i.e. 5 steps), but they actually have less options than before. In the past, we could give a rating from 0 to 3, but with 0.5 increment (i.e. 7 steps). The new ratings resulted in a smaller spread among papers and made it very difficult to decide on the cut-off score. This is the primary reason in this year why our acceptance ratio is higher than in the past. ==> We need to increase the rating steps at least to seven as before.

11) View abstract site: Duplicate abstracts in pairs are currently shown in the view abstract site while the review is in progress. ==> There is no reason to show duplicate abstracts in the view abstract site.

12) Final action pending site: When an abstract is reviewed, say by all three reviewers, the final action pending site shows the paper title and author names three times as well as three individual ratings (but no reviewer names). ==> The system should display the paper title and author names only once, and reviewer names and their review ratings.

13) Final action pending site: Abstracts in the final action pending site are listed in the order of ratings. In many instances, we need to look for a certain abstract and have to use the find function each time. ==> We need to have two final action pending sites: one in the order of ratings and the other one in the order of abstract numbers.

14) Reviewers' holding area: To find the review status for each reviewer, we can click the reviewer's name on the reviewers' holding area if he/she still has more abstracts to review. But, when they complete the review, reviewer names disappear from this site and it is cumbersome to track abstracts for individual reviewers when there are hundreds of abstracts. ==> The reviewers' name should remain on this site even when they complete their reviews.

15) Reviewer notification: We were originally told that reviewers would not receive a notification until abstracts are actually assigned to them. But, I found that they received notifications as soon as I added them on the system. It generated many unnecessary

inquiries since the notification did not include all the necessary information such as the user ID. ==> Reviewers should be notified only when abstracts are actually assigned to them.

16) Adding reviewers: When we try to add the reviewers to the reviewer directory, the website states that "required fields are in black." But, they are actually in bold and there are more fields in bold than necessary. ==> I think that "black" should be changed to "bold" and only the absolutely necessary entries should be in bold.

17) Reviewer box: When we assign the reviewers for the abstract, the current selection drop box on the web can show only four reviewer names at a time, which makes it a little difficult to choose one at a time from over seventy reviewers. ==> We need to make the reviewer selection drop box a little longer.

18) Reviewers' holding area: If an abstract is assigned to reviewers and it is not reviewed by any reviewers, the organizer cannot take any action on that abstract. ==> We need to include an option so that the organizer can accept or decline the abstract without further review.

19) Reviewers/session chairs: When authors submit their abstracts, they can just input the AIAA membership number unless they are not members. However, the current electronic process requires us to input reviewer information manually on the web. In addition to the reviewer directory (over seventy), we also need to create the session chair directory (about fifty). However, many of them are overlapped and most of them are AIAA members. ==> We need to have an input option using the AIAA membership number similar for the authors. In addition, we may consolidate the directory for reviewers and session chairs.

20) Adding additional organizer: Currently, we do not have a way to add the additional organizers who would have the same authority as the original TC organizer. ==> The TC organizer should be able to add additional organizers if necessary (it is similar to the assisting organizer, but they are different).

21) Paper abstract: One scanned abstract does not have any author information (other than the name) such as a mailing address or email address. When this abstract was scanned and uploaded by the AIAA staff, the TC organizer's email address was used instead. I am not sure how we inform the review results, etc. to the author(s). ==> Paper abstracts without the proper information should not be processed.

Part C: Items for Further Discussion

The following is a list of issues which the SDTC needs to discuss before making recommendations.

1) Conference length: In the past, it could take up to six days (from Sunday through Friday) depending on conference location and attendee's residence to attend the full conference. Specially for those who are interested in structural dynamics, it is difficult to attend a portion of the conference because SDTC has so many sessions which are usually distributed throughout all four full days. There are trade-offs: a less number of days means more number of concurrent sessions, vice versa. For the 2001 conference, SDTC sessions will be distributed from Monday morning through Thursday "morning" with mostly three concurrent sessions except four concurrent sessions on Monday afternoon. ==> We need to decide whether we need to expand or reduce SDTC session time lines (or stay with three and a half day).

2) Review guideline: As in the past, there are too much inconsistency among reviewers for the same abstract, especially for short length abstracts. I am assuming that some reviewers are not familiar with the SDM abstract submittal requirements on the length and contents. ==> There are several options we need to consider - simple to complex options: a) include the corresponding requirement web link on the reviewer website, b) add the requirement excerpts directly to the reviewer website, or c) use the detail review table discussed previously which has the category of technical content, originality, and completeness.

Part D: Miscellaneous problems & resolutions

The Following is a list of the problems we faced this year. Most of them were resolved, but this information would be useful for future organizers.

1) When an action was taken on one system website, in some instances, this information did not flow into other corresponding websites until several hours later. In other words, information in the different websites are not consistent and it caused a few problems. ==> It is supposed to be updated in real time.

2) Several abstracts were not assigned to reviewers (actually they disappeared), although they were assigned and corresponding system emails were issued. In addition, there was no way of assigning them again to reviewers since they were reviewed by the remaining reviewers and moved into the final action pending site from the reviewers' holding area. ==> This is not supposed to happen. A new option was added, which allowed us to assign them again to reviewers in the final action pending site.

3) The system websites were moved to a larger system during the abstract review process to provide more disk space and faster processing. However, it caused a problem and new websites were not accessible. ==> The problem was fixed in a few days.

4) The system did not calculate the average of review ratings correctly. ==> The problem was fixed.

- 5) When reviewers gave the same rating, the final action pending site shows only one rating which seems to indicate that only one reviewer reviewed the abstracts. ==> The problem was fixed.
- 6) The password could not be changed. ==> The problem was fixed.
- 7) Not all reviewers' name were shown under the choose reviewer site. ==> The problem was fixed.
- 8) Some abstracts were reviewed by all three reviewers and were moved into the final action pending site, but they still remained in the reviewers' holding area. ==> They were fixed manually.
- 9) Some abstracts disappeared without any reason. ==> They were loaded again manually.
- 10) Some abstracts were shown in one website, but not in other corresponding websites. ==> They were fixed manually.
- 11) There were over a hundred ghost or duplicate abstracts. ==> They were removed manually.
- 12) There were many abstracts submitted for the system test. ==> They were removed manually.

Appendix A: SDTC Reviewer Information for 2001 Conference

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Appendix B: SDTC Abstract Average Ratings for 2001 Conference

