

# STUDENT TALKS FOR JAN-APR 07: DISCUSSION

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ABSTRACT. Chennai Mathematical Institute (CMI) has initiated a system of student talks effective from August 2006. There have so far been fifteen talks, spanning across mathematics, physics and computer science. There are plans for a better Student Talks system in the coming semester (January-April 2007). This article lists key action points needed for the success of Student Talks.

## 1. THE WHAT AND WHY OF STUDENT TALKS

**1.1. What are student talks?** A Student Talk is supposed to be a lecture (duration varying from 15 minutes to 100 minutes) given by a student on an academic topic to other students. A student talk is a *lecture*, it is *not a discussion*, it is not a free-wheeling exchange of ideas. Each Student Talk is expected to have a clear talk title, and the content of the talk should be somewhat related to the talk title.

It is upto the speaker (the lecturer) to decide the extent to which the audience is allowed to participate.

In the current scope of Student Talks, each Student Talk must have the following: talk title, topic area, speaker, and expected duration. Student talks are usually in mathematics, physics and computer science, because these are the subjects of study in CMI. However, student talks are also welcome in other areas. The only prerequisite is that the talk should be *academic*. Non-academic talks can be accommodated on other fora.

**1.2. Why do we have student talks?** Student talks are intended to benefit both the speaker and the audience. The speaker benefits in the following ways:

- (1) He/she gets the pleasure of sharing his/her ideas (or his/her understanding and interpretation of ideas)
- (2) He/she gets valuable experience at teaching and presenting material. If the speaker also makes a presentation or prepares material for the talk, he/she also gets experience at preparing material.
- (3) Motivated by the need to give a talk, a student may take up the study of material that he/she may otherwise have not got around to doing.

The audience benefits as follows:

- (1) From each individual talk, an audience member may grasp particular ideas, approaches and perspectives. Even if an audience member does not understand all the talk contents, the talk may give a basic flavour.
- (2) The student talks also motivate students to read up more on somewhat off-beat areas and show them connections that are ignored in standard lectures
- (3) if the overall scheme of student talks is well-planned, then a person, after attending all the Student Talks, gets a flavour of mathematics, physics, or computer science as whole.

## 2. GIVING A STUDENT TALK

**2.1. Who can give a student talk?** Anybody who is a student (B.Sc., M.Sc. or Ph.D.) is welcome to give a student talk. Alumni are also welcome to give student talks.

Student talks are lent credence only by student participation. So the more people come forward to give student talks, the greater the success of the endeavour.

**2.2. How do I give a student talk?** If you think there's any topic on which you want to talk at some point in the near or far future, think up a nice attractive talk title, get a quick sketch of what the talk will be about, and send me an email describing these. Remember to include talk title, topic area, speaker name, and expected duration. These could be approximate and may change with the course of time (except speaker name). Remember also that indicating your *intention* to give a student talk is very different from *committing* to give one.

If your talk fits within the broad framework of Student Talks (which it probably will), and if there is time to accommodate it (which will also hopefully be the case), then you can select an appropriate time at which to give the talk. A mail will be sent to the student talks mailing list, asking people whether they are interested in attending your talk, and the time will then be fine-tuned to the convenience of all those who want to attend.

### 3. TOPIC COVERAGE FOR STUDENT TALKS

**3.1. Who decides the topics to be covered?** So far, student talks have been left to the caprices of individuals, with no global direction or framework of what topics should be covered. However, this semester, it is likely that efforts will be made to include at least one student talk in each major area, and provide a balanced picture of important areas of mathematics, physics and computer science.

Ramprasad is the coordinator for computer science, and by default, I am the coordinator for mathematics (nobody else having volunteered for the job). The issue of who will coordinate physics is still open.

**3.2. What say do I have in the topic coverage?** It is desirable that each of you sends in your own list of topic *areas* where you would like student talks to be covered. Please avoid sending specific talk titles that you would like to hear (this is not a “name my dream film” contest), unless the area in which you are interested is very narrow and specific.

### 4. PATTERN OF THE STUDENT TALKS

**4.1. Seminar or workshop?** Student Talks so far have been following the Seminar System – one person comes, lectures, leaves and that’s the end of the story. Each talk stands as an independent self-contained unit. That way, people can decide for each talk whether or not to attend – they don’t have to say things like – “since I missed the previous part, I cannot follow this one”.

On the other hand, a workshop system would be one where the talks are on specific and not too hard areas, with greater focus on each person actually understanding the intricate details, and with the talk split across multiple sessions, along with some “working-out exercises”. There is an advantage: it may actually *teach* the subject to eager learners.

We have so far run Student Talks on the Seminar Pattern. However, it may be advisable to also have a few workshop sessions. Suggestions on this count are welcome.

**4.2. Duration.** The duration could vary between 20 and 100 minutes. Typically, a good student talk (from experience) lasts about an hour. Suggestions on criteria for determining and limiting talk duration are also welcome.

### 5. SCHEDULING OF THE TALKS

**5.1. Working versus non-working hours.** Should Student Talks be held in working hours or in non-working hours? So far, we had hardly any choice, because the bus schedule forced Student Talks to be held in working hours. However, with students now living in the hostels, availability is not a problem.

Advantages of holding the talks in working hours:

- Since the talks are anyway *academic*, they are best confined to the time reserved for academics.
- Having the talks in working hours ensures the availability of all, particularly local candidates.
- Support systems, like the office, cleaning staff, and system administrator, are easier to invoke during working hours
- There is less psychological encroachment of “leisure time”.

Advantages of holding the talks in non-working hours:

- The talks will not conflict with the complicated course schedules of students.
- Students can attend the student talks in a more relaxed frame of mind.

Please send in your views.

**5.2. Weekdays versus holidays.** Among non-working hours, there is again the option of having student talks in the morning/evening on working days as opposed to having student talks on the weekends.

Advantages of weekdays:

- Local candidates may flee for home on the weekends, and even hostel members may go out to the city for business and pleasure on weekends
- In weekdays, people are in a more academic frame of mind

Advantages of weekends:

- Having student talks on the weekdays on top of a hectic course schedule could be stressing
- There is less time constraint and more scheduling space on the weekend

Please send in your views.

**5.3. Conflict with other student activities.** No inputs have been received on plans for other student activities, so the conflicts cannot yet be sorted out.

## 6. RECORDING TALK CONTENT

It is desirable that a permanent record remain of the material covered in Student Talks. Some of the speakers prepare slide presentations or other documents. Those whose talks are not suited to slide shows, and who are unable to work out anything fancier, could submit a text file or a handwritten outline of talk contents.

This is currently only an optional and not a necessary condition for giving a student talk.