

# **Six points for giving talks**

**Maths and Stats**

**MSc Masterclass University of Melbourne**

**Arun Ram, 23 April 2020**

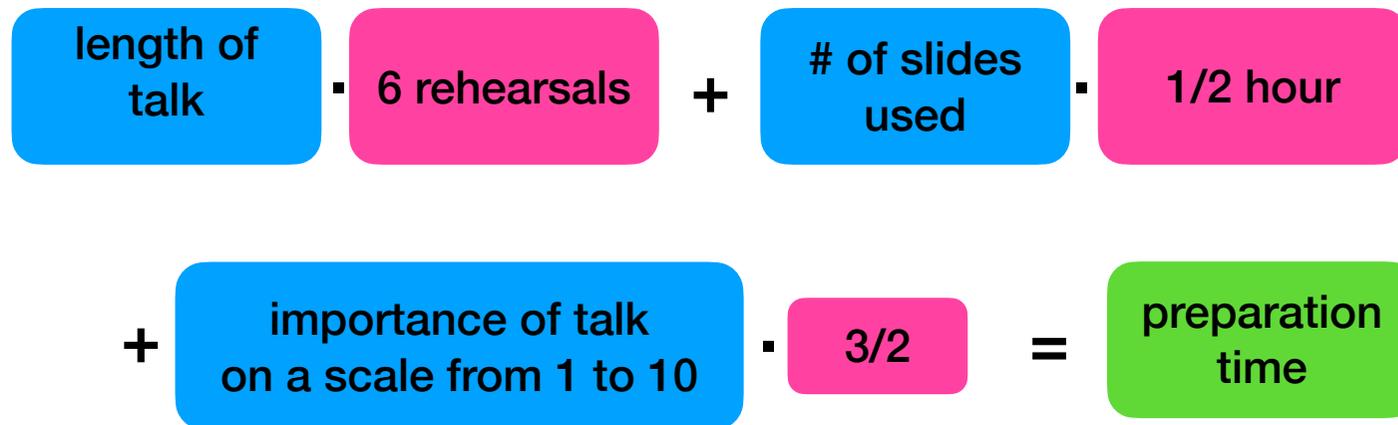
**Point 1:** The most consuming thought  
throughout preparation and delivery:

# AUDIENCE

**Fact:** Different audiences understand different dialects;  
Same content, same meaning, different dialects

**Point 2:** The thing that most affects the quality of your talk:

## PREPARATION



**Example:** 20 minute talk, importance 8 with 10 slides

$$\frac{1}{3} \cdot 6 + 10 \cdot \frac{1}{2} + 8 \cdot \frac{3}{2} = 2 + 5 + 12 = 19 \text{ hours prep time}$$

**Fact:** This formula was derived from experience — 30 years of data keeping

**Point 3:** Writing a talk: Most of the effort is

## CUTTING MATERIAL

to create **focus**, **clarity** and **direction**  
to the **punchline**

**Point 4:** Most important skill for a career in mathematics

## TIME MANAGEMENT

**Fact:** No-one listens to anything you say

After your official time slot is over

**Point 5:** Know how to drive your

# PRESENTATION TOOLS

Computer, slides, projectors, boards, chalk

Pictures, equations, formatting

**Fact:** Chalk doesn't squeak

if the angle to the board is  $\leq \frac{\pi}{3}$

**Point 6:** Why are talks important to a researcher?

Success (on a grade 2 playground) is determined by:

“Whoever has the most toys wins.”

In math this is:

“Whoever knows the most math wins.”

**Fact:** The way that the community decides

how much math you know

is by whether you can

**EXPLAIN IT** to them

# Sam's list of additional questions

Presenting

Thursday 9th April, 12-1 PM

Room 107

**Target Audience - Research 3/  
PhD**

*Presented by Arun Ram*

Presenting is a common part of an academic career, but can often be the most daunting! This talk will focus on developing confidence as a student presenter; the difference on presenting at seminars and conferences, and finding the right conference to attend, along with potential funding opportunities.

1. Final MSc presentation
2. For giving talks in the future
3. Adapting to a seminar/conference
4. Developing confidence
5. Finding the right conference
6. Finding funding opportunities

## Sam's list of additional questions

This is a teaching task:  
I, in the audience,  
want to learn  
what the main point  
of your thesis  
was.

### 1. The final MSc presentation

## “Talk machine”

- Write the main point

“For my thesis I learned that ...”

- Add necessary definitions

to make sense of the main point

- Add necessary context

Why do we care about the main point?

 CUT/REFINE to length and audience

**Fundamental Rule:** Only one main point allowed

## Sam's list of additional questions

### 2. For giving talks in the future

# “Talk machine”

- Write the main point

“In my recent research I learned that ...”

- Add necessary definitions

to make sense of the main point

- Add necessary context

Why do we care about the main point?

 CUT/REFINE to length and audience

This is a teaching task:  
I, in the audience,  
want to learn  
what the main point  
of your research  
was.

**Fundamental Rule:** Only one main point allowed

## Sam's list of additional questions

### 3. Adapting to a seminar/conference talk

	MSc Presentation	Seminar talk	Conference talk
What are the differences?			
How to address these differences?			

 CUT/REFINE to **length** and **audience**

**Fundamental Rule:** Only one main point allowed

## Sam's list of additional questions

### 4. Developing confidence

**Point 2:** The thing that most affects the quality of your talk:

**PREPARATION**

**PRACTICE**

**REPETITION**

## Sam's list of additional questions

### 5. Finding the right conference

- Web, mailing lists, go to lunch, pub, Facebook, Discord, ...
- Make a list of 50 exciting conference options
- Rank these by how much you'd like to be there
- Apply to the top 5 on your list

## Sam's list of additional questions

### 6. ~~Finding funding opportunities~~ Fundraising

**Fact of life:** Any significant business/initiative/project

# **SUPPORTED BY SEVERAL SOURCES**

Several sources cobbled together to make it happen

**Note 1.** Usually people are trying to give away money

**Note 2.** Investors like to invest where others have invested

**Note 3.** Investors like to be “first”

Make good things happen

And get credit for it

**Note 4.** Investors like to continue funding successful projects

## Sam's list of additional questions

### 7. TECHNOLOGY for online presentations

**Widely used:** Go with something that MANY other people use

This will save you lots of time in the end

## ZOOM

**A Notetaking/Presentation app: 1.**

Powerpoint=Keynote=Notability=iBooks=Goodnotes= ...

Powerpoint and Keynote have capability for drawing, including images, including video, including music, etc

**For mathematics presentation:** A handwriting tool

## STYLUS/PENCIL/TABLET

Active presentation is always better than passive presentation

Your list of additional questions

**ASK ME A QUESTION**