Editor’s Message: Assumptions

When I took my oral qualifying exam at Berkeley many years ago, my seniors told me that if I made it past the assumptions slide, I would pass. Assumptions are the foundations on which a dissertation is built and the examining committee subjects a candidate’s assumptions to harsh analysis. If the assumptions are correct, then the rest of the dissertation, even if flawed, is correctible. Nothing can rescue a dissertation built on incorrect assumptions.

What is true for dissertations at Berkeley is just as true for presentations, papers, and indeed your research career. It is supremely important to ensure that assumptions underlying your work are sound.

Unfortunately, there is an inherent problem in validating your assumptions. If you are both making the assumptions and validating them, then it is likely that you are going to be biased in your evaluation. So, you may overlook a flaw that a more critical eye could easily discern.

That is the reason why I think it is a good idea to frequently subject your ideas to open inspection by a critical audience. You can do this by giving talks or by talking to your peers one-on-one. The more directly your assumptions are questioned the better. If your assumptions can survive several rounds of criticism then you can be relatively certain of their validity.

For our discipline to progress, it is important that both ends of the bargain be kept. Researchers should share their ideas openly and be prepared to defend their assumptions. And, as a listener and critic, you should dissect and criticize the assumptions in the talks that you hear and the papers that you read.

As an aside, I know that I may not always be a welcome member of some audiences because I pull no punches in my skewering of what, to me, appear to be incorrect assumptions. For the record, this is never personal: I am playing my role as a critic in what think is in the best scientific tradition. I will paraphrase the great Hamming to state that scientists should attend talks not to congratulate the speaker but tear them apart!

Which brings me back to the papers in CCR. As you read, do take the time to think through whether the assumptions make sense. Our reviewers and editors do as thorough a job as they can, but the onus is still upon you. Do also read the public review of a paper, where the Area Editor discusses the pros and cons of each technical paper. This will help you understand the assumptions with which an Area Editor agrees or disagrees. Remember that CCR Online is available for your comments and discussion. Of course, you can also write to an author directly with your questions and constructive criticism.

S. Keshav
CCR Editor

The CCR Index

Total submissions: 24
Accepted submissions: 10
Submissions recommended to revise and resubmit: 3
Technical paper submissions: 16
Technical papers accepted: 5
Editorial submissions: 8
Editorials accepted: 5