Laboratory for Foundations of Computer Science

Research Committee Meeting

10-12am Tuesday 12 March 2002
Room 2511, JCMB, King's Buildings

General information about the Research Committee

Agenda

1. Minutes of previous meeting and matters arising.
2. Arrivals and departures; accounts; grant portfolio (Monika Lekuse).
3. Deputy Director post (Colin Stirling).
4. Institute Appraisal -- What, why and how? (Javier Esparza).

   Institute Appraisals were discussed at the RAC meeting in January -- see minutes, item 4.. Any decision was basically postponed. I'd like to discuss the issue in a goal oriented way. Which should be the actions following a good/bad review? Which kind of review--if any--will allow to implement those actions?

5. Interactions with the rest of Informatics (Colin Stirling).
6. Any other business.

Laboratory for Foundations of Computer Science

Research Committee Meeting

Friday 30th November 2001
Room 2511, JCMB, King's Buildings

General information about the Research Committee

Minutes

Present: Ian Stark (chair), Julian Bradfield, Martin Grohe, Javier Esparza, Massimo Felici, Monika Lekuse, Colin Stirling, Don Sannella, Paul Jackson, John Longley, Perdita Stevens, David Aspinall, Bill Orrok (minute secretary).

The meeting opened at 14.05.

Ian Stark welcomed everyone to the meeting.

Apologies. Jane Hillston, John Power, Daniele Turi.

1. Matters Arising.

Action on Milner Lecture. A selection meeting took place which several people attended. After some discussion it was decided Martín Abadi be invited to give the lecture. He has accepted, and can make the dates of the Jamboree. The Jamboree will be held from May 22nd to 24th.

There was an action on John Longley to bring an item up on TPG. The item is on the agenda.

Another action was on Ian re extended committee membership. This has been done. It has been rewritten and people notified. John was welcomed as being at the committee as a member rather than just as someone invited to talk to the committee.

The verification day happened. Javier gave a short report saying it was fine and was enjoyed. It was pretty much improvised but went well and it is something that could happen again. Ian mentioned that LFCS paid for lunch, and that we can use LFCS funds to assist in making workshops happen.

The final action was on David to take the issue of user names to computer committee. He was not exactly sure as to what was required. A long discussion took place on the subject of user names and URLs and whether or not it was dehumanising to use numeric user form for PhD students. It was pointed out that PhD students' web home page addresses are now seven-digit numbers, which makes it hard for them to give out to other people, say at conferences. Perdita suggested that we arrange to give them simpler addresses from the LFCS web site. A proposal was worded that David should take it to the Computer Committee informing them LFCS was not pleased with the numeric user ID form for PhD students.

ACTION: Ian to set up redirection for students from LFCS web site

ACTION: David to take to Division Computing Committee

2. Arrivals and Departures; Budget; Grant Portfolio;

Monika said she could not think of anyone who had left since the last meeting. New people are Marcus Frick who is working with Martin Grohe and Michal Konecny who is working with Dave Aspinall. All the students have arrived. We currently have two visitors one from BRICS and one from Australia who is working with Murray. 2 visitors will be arriving hosted by Gordon Plotkin (Bartek Klin from BRICS and Kundan Misra from Warwick). Perdita and Jane will also be hosting visitors.

A printed copy of the budget report had been issued with the papers for the meeting. The budget report was prepared and presented to the committee by Ian Stark. Questions and discussion followed which included the topics of cross funding of students and availability of funding for workshops. A hand written sheet had been prepared by Monika and distributed to members of the committee in attendance. This indicated where we stood with the budget at that time.

Martin asked about funding for visitors to travel to Edinburgh. Don said that EPSRC Visiting Fellowships were ideal for this, and always seemed straightforward to get. Colin supported this, and recommended people apply for them.

The grants report was presented by Monika who said it looked healthier than last, time currently about £3,620,000. Most are in the middle of running. None will run out in the next few months. We also have a lot of EC money which will start early in the next year from various projects such as the Julian's project on games, Don's project MRG and Perdita's project DEGAS. MRG and DEGAS should fund 4 RAs in LFCS. Julian, Don and Perdita each gave a description of their projects. The latest success is .net where we are getting 10K funding from Microsoft for machines. There are a few small items in the pipeline. Ian expounded on .net

3. Larger Grants.

Printed copies of Platform Grants Guidance, IT and Computer Science (ITCS) Programme were issued along with the papers for the meeting. Colin spoke on this and said that the idea of a platform grant is to have a substantial sum of money to enable a group of researchers to keep RAs and infrastructure going and then on top to apply for resources grants that are needed. The groups must have a internationally leading reputation and their proposals must demonstrate the group has a track record in getting support from multiple funding sources including industry (this is an explicit requirement, and might be a deterrent for us). Details of the nature of the scheme, how to apply, criteria and a contact email address for the Programme Manager are all on the guidance sheet issued.

Discussion ensued during which Ian said this was possibly more amenable to open ended research. It was mentioned that a lot of the advantages in platform grants already happen in LFCS such as bridging between grants. During discussions Colin once again pointed out that this was not project money. It was money for infrastructure and there should be project money in addition. Platform Grants could possibly allow a greater flexibility in the use of money.

There was some debate over whether LFCS should consider an application to cover the whole institute, or if it was really targeted at smaller groups. Don and Perdita thought that we should apply for a platform grant for all of LFCS, as we already had the necessary management and infrastructure at that level. Colin said that the degree of focus required suggested smaller groups, working on a single area of important research. It was also unclear what sort of things the money could be spent on.

After some discussion, no conclusions were reached except that Colin should contact the programme manager to discuss whether a grant for the whole of LFCS, or for one or more groups within it, would be a sensible application.

ACTION: Colin to talk to Vince Osgood

Copies of an overview of the International Review of UK Research in Computer Science and EPSRC response were also issued along with the papers for the meeting and were mentioned during the Platform Grants discussion.

4. TPG Course.

The last time this was discussed re possible changes to the course was back in March. Nothing was formally approved or decided but there was a broad spirit of agreement as to what John had said. The minutes of the March meeting asked John to re-present the proposals at the next meeting. As it was necessary for him to send his apologies to the June meeting, John said he decided to now not re-present the proposals but to instead report on what he had actually been doing. To this end John Longley prepared a printed report for the meeting. The report was issued to all members in attendance.

John ran over the salient points in the report and elaborated as necessary. This year the course is unusually large as we have 8 PhD students proper, plus 2 long term visitors who are engaged on the course. There are also a few other people (e.g. a couple of people from maths) who are sitting in on parts of the course.

The basic objectives of the courses this year have remained the same. Term 1 courses have been:

- Category Theory
- Computation and Logic
- Concurrency (updated)
- Functional Programming/Formal Program Development (updated)
- Formal Programming Language Semantics (updated)

The following courses will run in term 2:

- Complexity Theory
- Advanced Logic
- Type Theory and Computer Aided Formal Reasoning.

John is also talking to people as to the possibility of giving short courses of 4 or 6 lectures. Some of these may occur in Term 3.

In week zero John held discussions with each student and (in most cases) their supervisor to discuss the course, look at what the student needed to attend and help tailor the course to the individuals. He felt that this had been extremely worthwhile.

The nominal distinction between compulsory and optional courses was retained in this years handbook with a qualification the labels are for general guidance only. In practice almost all the students are doing almost all the courses.

Wednesdays have, at the students request, been left free of lectures so they can structure their own time more effectively.

Colin said that the students this year seemed a very good group, with excellent participation in lectures.

Students have again been encouraged to take at least one course outside LFCS (usually Informatics MSc). There was in reality a great deal of clashes in timetables. Perdita suggested that one way around this would be to put fewer courses in term 2. One student did ask if he could do a Maths course.

There will be a TPG exam this year.

5. Interactions with the rest of Informatics

Colin said their was nothing additional to report.

6. Summer studentships; Postgraduate assistants

Summer studentships Ian gave a report on what has happened.

We funded Gary Campbell to do some work over the summer on MIZAR. He will give a lab lunch talk on it and is continuing in the same area as a 4th year project.

Ian asked for suggestions for projects for next summer: things that students could that would be useful to the member of staff concerned and of interest to students.

Postgraduate assistants. We currently have three. Lennart Berringer is working on material for the web site. He has been gathering information, peoples' publications, research interests, research grants etc. Marco Kick is doing quite a lot of work on software support for LFCS. Miki Tanaka is doing work on LFCS reports and publications.

A discussion took place on how useful it was to put the list of publications on the web. It is a continuous job, not something that can be done once only. Perdita questioned whether it was worth the effort. Ian said that it should not be too much for Miki, done steadily over time. As this is only provisional, it was suggested that we get statistics on how much the pages were seen.

ACTION: Ian to find out how many clicks it gets.

6. AOB.

David raised a matter of out of date machines. He said both Stephen Gilmore and himself are concerned that machines are so out of date they may be compromising research. The provision of machines for teaching staff is only once every three years. Julian suggested that if people require faster machines they should apply through grants. There was a discussion about could we or should we be more flexible as to how machines are shared out. Ian said that in the past when LFCS bought machines people could put in bids to get new ones sooner, but now there is no such mechanism.

Monika raised the issue of "infrastructure charges", and explained how the Division office was going to change how they were spent from grants. It was agreed by the grant holders at the meeting that they wanted any infrastructure charges managed within institute budgets, as flexibility here is a very effective way to get the most money out of grants. The new scheme will remove flexibility, and likely lead to money being lost by the Division.

ACTION: Colin to raise this with PRC.

Meeting Closed 16.04.

Laboratory for Foundations of Computer Science

The 2002 Milner Lecture

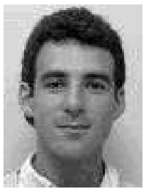
Security Protocols: Principles and Calculi

Martín Abadi

University of California Santa Cruz

4.30pm Wednesday 22 May 2002
Law Lecture Theatre 175
Old College, South Bridge, Edinburgh

Security protocols, as used in distributed systems for authentication and related purposes, are notoriously prone to failures. Therefore, over time, various methods have been developed for the design and analysis of these protocols. This talk introduces principles of protocol design. Taking a more formal approach, it describes calculi for reasoning about protcols, in particular an extension of the pi calculus with function symbols that can represent cryptographic operations. The principles emphasize that protocol messages have meaning; the calculi exploit the idea that programming languages provide a setting and a body of techniques for the study of security.



Professor Abadi is well known for his wide-ranging work on security, programming languages, and specification and verification methods. In particular, he was one of the creators of the influential *"BAN logic"* for reasoning about authentication in distributed systems, and the *spi calculus* for describing cryptographic protocols. Prior to joining the University of California at Santa Cruz, he worked at Digital's System Research Center and other industrial research labs.

This is a public lecture, open to all, and will be followed by a reception at 5.30pm in the Talbot Rice Gallery. This is one of a range of events comprising the University of Edinburgh Informatics Jamboree, 22-24 May 2002.

The annual Milner Lecture was founded by a donation from Robin Milner "to keep a live connection between theory and application in computer science".

Laboratory for Foundations of Computer Science

Deputy Director

In creating the Division of Informatics, new structures were set up that aim to provide administrative and organisational support sufficient to reduce considerably the administrative tasks of members and Heads of Institutes.

In addition to these, it is the experience of LFCS that institute management has a significant scientific component. To take account of this the LFCS Director has appointed an academic staff member as Deputy Director.

The size of LFCS makes this scientific component a substantial responsibility, amounting to around twice a lecturer's expected administrative load.

The formal responsibility of the Deputy Director is to implement the academic and scientific management of LFCS, as determined by the Director. Details of specific duties are listed in the full job description.

The current appointment of the Deputy Director is for three years. After that the LFCS Director will review the role, with particular attention to the scale of the job.

Ian Stark currently holds this post, and in consideration of these administrative duties his non-core teaching load is reduced.

Thursday 4 November 1999

Laboratory for Foundations of Computer Science

Deputy Director

Job Title:

LFCS Deputy Director

Responsible to:

Director of Institute

Responsible for:

Implementing the academic and scientific management of LFCS, as determined by the Director.

Term of Appointment:

Normally for a period of three years, with the possibility of renewal.

Purpose:

To maintain and further the activities and continuing success of LFCS as a coherent and effective research institute within the Division of Informatics.

Responsibilities

While the LFCS Director is responsible for setting general direction and strategy for the Institute, the Deputy Director and the Service Manager are jointly responsible for making things happen. They work in close collaboration to achieve this.

It is the experience of LFCS that institute management has a significant scientific as well as a purely administrative component. As an academic staff member, the Deputy Director is responsible for this scientific component. The detailed allocation of duties between the Deputy Director and the Service Manager is agreed by them in consultation with the Director.

The most visible part of the Deputy Director's role is as a first point of contact for LFCS matters. The day-to-day life of LFCS depends on the Deputy Director and the Service Manager arranging rapid solutions to a host of ad-hoc requests from Institute members.

In the Division at large, the Deputy Director is also the default LFCS contact for the assorted committees and other bodies that need to talk to the Institute.

Specific duties

Many of the Deputy Director's tasks are one-off actions, under the instruction of the Director. There are also a number of ongoing responsibilities, as detailed in the following list.

- Fostering a productive and coordinated research profile.
    - Convening the LFCS research committee.
    - Stimulating individual grant proposals by LFCS members.
    - Arranging periodic reviews of research areas.
    - Coordinating LFCS response to EPSRC managed programs.
    - Involvement in the Director's determination of LFCS research strategy.
- Publicity and visibility.
    - Dissemination of research results.
    - Licensing and distribution of software.
    - Content of the institute web site.
    - Relations with EPSRC and other funding bodies.
    - Advocacy for LFCS within the wider research community.
- LFCS activities.
    - Minicourses, schools, workshops and conferences hosted by LFCS.
    - The annual Milner Lecture.
    - Lab lunch and theory seminar series.
    - Fostering the various LFCS clubs.
    - LFCS awaydays.
- Educational concerns.
    - Oversight of the Theory Postgraduate course.
    - LFCS postgraduate admissions.
    - Institute representative on the Informatics Graduate School committee.
    - Impact of degree content on LFCS postgraduate studies and recruitment; appropriate vertical integration.
    - Courses for external participants.
- Finances.
    - Assisting the Director in budget planning and preparation.
    - Stewardship of assorted institute funds: travel, equipment, PhD studentship, small project grants.
- Relations with industry.
    - Initiating and maintaining industrial contacts and collaborations.
    - Interaction with ERI.
    - Industrial affiliates.
    - Institute representative on the divisional industrial liaison committee.
- Promoting collaborations within and outwith LFCS.
    - Connecting individual LFCS researchers.
    - Matching specific LFCS skills to the needs of projects in other institutes across the division.
    - Identifying possible partners for involvement in EU and other initiatives.

Ian Stark
Thursday 4 November 1999

Division of informatics

Minutes of the meeting held on Wednesday 9th January, 2002 at 2.00 pm in room 2511, JCMB, King's Buildings.

Present: Javier Esparza (Convenor), Alan Bundy, Bob Fisher, Mike Fourman, Alex Lascarides (Academic Rep), Johanna Moore, Dave Robertson, Mark Steedman, Colin Stirling, Bonnie Webber, David Willshaw.

In Attendance: Alan Murray and Margaret Davis (Secretary).

Professor Esparza introduced himself to the meeting as the new convenor. He thanked Gordon Plotkin for his previous work for the committee.

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4. Appraisals of Institutes

IPAB, ICSA, LFCS and IANC have previously been appraised. CISA and ICCS remain. CISA is willing to carry out the self appraisal within the same format but ICCS is strongly opposed. There was strong opposition to the term 'appraisal' as it denotes some form of evaluation. The term 'research retreat' was suggested as a more acceptable form of wording.

Criticism was raised that too much activity within the Division related to evaluation in general. Javier Esparza commented that, knowing the German and Spanish systems, he was surprised by the emphasis put on control and evaluation at all levels in the British system. The role of externals in either a review or a retreat was discussed as some members felt this was inappropriate.

The committee agreed that two approaches would be necessary. A review of the institutes, to be addressed in the future, would perhaps have a five-yearly cycle. The second, which was being considered here, would be a wide spectrum meeting to give Division members an opportunity to find out about research activities within the various groupings. This could be modelled on the previous Moray House campus meeting. The Jamboree may be restructured to include this.

Action: Javier Esparza

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