SCSC Meeting Minutes 2011-07-25

Present: Amber Boehnlein, Rob Cameron, Arno Candel, Ashley Deacon, Richard Dubois, Thomas Eriksson, Imre Kabai, Stuart Marshall, Randy Melen, Amedeo Perazzo, Jennifer Russell

News:

- Amber will coordinate a telecon with Globus Online folks to investigate possible use at SLAC. She is looking for interested parties to participate.
- the Dan Hitchcock (ASCR) visit fell through

Regular Agenda Items

- Jennifer Russell, leading the IT Projects group, introduced herself. She is interested in also helping with the project management of scientific computing projects as well.

Tape Silo

Lance Nakata told us about the state of the tape silo:

- at current fill rates, the silos would be full in ~6 months
- options are to add a silo or go to higher density drives. The latter seems most sensible to start. 5 TB drives (T10000-C) exist for 1/2 the price per TB as the 1 TB ones. A drive runs $22k. Lance guesses we would need 8 drives to be worthwhile. We currently have 47 drives; capacity in the existing 2 silos is 128.
- he will be talking to folks at other labs (notably LLNL) who have experience with them. We will also need to do a few upgrades (ACLS, firware and HPSS) before the new drives can be used. It was stated that the new drives are not likely to be available before 6 months.
- in about 3 years, 10 TB drives should be available. Apparently they will be able to read and write the 5 TB tapes (and write at 10 TB density, I believe)
- For the SCSC:
    - when does the decision to go with 5 TB drives happen
    - how will we pay for them
- in the meantime, groups needing tapes on shorter than a 6 month leash should go 1 Tb (PPA is ordering 1800 of them now).

CD Review Process

We had a discussion on the planned CD review process. We came to the idea of having a full up external review sometime next year ("spring?") and working our way up to it with incremental looks at current systems with targeted internal documentation and reviews. These could then form the basis for the big review.

The short term plan is to have Shirley Gruber bring a list of planned projects from the CD scientific computing team to the next SCSC meeting and ask for help with prioritisation.

Seminar Planning

Amber and Arno met with Margot Gerritsen on Tuesday 7/26 11AM

- Margot: Director, Institute for Computational & Mathematical Engineering, and Associate Professor, Department of Energy Resources Engineering, Stanford University
- The goal is cross-fertilization between Stanford ICME and SLAC through commonly held seminars on scientific computing

Margot has kindly sent us an e-mail with a recap of what we discussed (with minor edits by Arno):

- ICME seminars are Mondays 4:15pm (on Campus)

- Fall quarter starts for seminars on Oct 3

- For Fall, ICME has a "theme" that is medical or bio-engineering applications and computational tools that can potentially or are already applied to these problems

- For Winter, the seminar is organized by Farhat (Stanford) with a focus on fluid mechanics, reduced order modeling and uncertainty quantification

- For Spring, ICME will collaborate with computational geosciences. This includes any modeling related to earth and space, as well as relevant techniques such as inverse modeling, uncertainty quantification, data filtering and assimilation.

- The first SLAC seminar is October 11 (Tuesdays are better: Don't want to interfere with the SLAC-wide Monday colloquia at 4PM)

- Start time at SLAC and Stanford will be same (4:15) - Stanford students have classes until 3:45, need time to come to SLAC

- Seminars may be taken by students for 1 unit credit. Students will sign up at start of the quarter for a particular talk and will write a small research paper commenting on talk contents and related literature, perhaps with guidance of questions posed by the speaker. Speaker will judge papers. A cap is imposed per talk on the number of students signing up for the paper.

- Speakers for the ICME seminars are typically invited out for dinner afterwards. SLAC people will be invited to join.

- For Fall, we have the preliminary schedule:

- Oct 3 ICME tbd
- **Tue Oct 11 SLAC tbd**
- Oct 17 ICME Fumiko Hoeft about analysis of brain functions and diseases (ADD, Alzheimers)
- Oct 24 ICME, Charlie Taylor on flow through arteries and the heart
- Oct 31 ICME tbd
- Nov 7 ICME, Dan Niles, financial modeling and stock markets
- **Tue Nov 15 SLAC tbd**
- Nov 21 No seminar (Thanksgiving break)
- Nov 28 ICME tbd
- **Tue Dec 6 SLAC tbd (last seminar of quarter)**

- Action items:
  - ~~Arno needs to find out if we can have a room at SLAC for the monthly seminar on those three Tuesdays.~~ DONE. Kavli auditorium is reserved