



Building the community



Project 8

Objectives

- ▶ 8.1 MUCM server
- ▶ 8.2 Toolkit release 8
- ▶ 8.3 Community services
- ▶ 8.4 to 8.6 Short courses at conferences
- ▶ 8.7 UCM 2012 conference
- ▶ 8.8 Revise website



8.1 MUCM server

▶ Objective

- ▶ Set up a dedicated server for MUCM
 - ▶ Providing website, toolkit and other community services

▶ Progress

- ▶ We have a (virtual) server
- ▶ Progress has been slow on installing systems
 - ▶ Website
 - ▶ eprints pre-print service
 - ▶ Toolkit to remain at Aston for the time being
- ▶ Hoping for commissioning in October
- ▶ Negotiating for a one-off charge



8.2 Toolkit

▶ Objective

- ▶ Release 8 to go live in July
- ▶ Planning for release 9

▶ Progress

- ▶ Release 8 live in early September
 - ▶ New home page and introductory pages from Jeremy
 - ▶ New sequential design algorithm from Noha
 - ▶ Revised uncertainty analysis page from Tony
- ▶ Release 9 planning at this meeting
 - ▶ Toolkit development has slowed right down
 - ▶ Needs fresh impetus
 - ▶ Need to do a prototype video



8.3 Community services

▶ Objective

- ▶ Set up mailing list and continue to build

▶ Progress

- ▶ The ucm mailing list has been going since October 2010
 - ▶ Not much traffic
- ▶ Idea of social networking service shelved
 - ▶ Maybe use LinkedIn
- ▶ Next project is the pre-print service
 - ▶ Using eprints software
 - ▶ Need to decide whether this is worth continuing with



Pre-print service

▶ Pros

- ▶ Create a one-stop home for a wealth of literature in the UCM field
- ▶ Engage the community more in depositing their papers
- ▶ More strongly establish MUCM as the leaders of the field

▶ Cons

- ▶ Setup cost
 - ▶ Lots of work for Jo to deposit all the material we have so far
- ▶ Copyright issues
- ▶ Functionality
 - ▶ I'm not sure how powerful it will be in searching and linking



8.4 to 8.6 Short courses

▶ Objectives

- ▶ 8.4 First conference short course (done)
- ▶ 8.5 Complete and polish set of course materials
 - ▶ By September 2011
- ▶ 8.6 Confirm additional short courses for 2011

▶ Progress

- ▶ Two courses given
- ▶ Materials created and refined by Peter, Dan, Tony
 - ▶ Using Dropbox
- ▶ Tony further revised for a course he is giving on UQ
 - ▶ Austin TX in October (engineers plus some folk from Los Alamos)
- ▶ Need to look ahead to 2012



UQ

- ▶ **Uncertainty Quantification**
 - ▶ Phrase appears to have originated in engineering
 - ▶ Where quantifying uncertainty is something of a novel idea!
 - ▶ Driven by the difficulty of propagating uncertainty through complex models
 - ▶ UA (also SA, but local)
 - ▶ Instead of emulators, they created their own tools
 - ▶ Polynomial chaos and other expansion techniques
- ▶ **Becoming highly active research field**
 - ▶ IFIP meeting on UQ in scientific computing
 - ▶ SAMSI year-long programme on UQ
 - ▶ SIAM/ASA conference on UQ
 - ▶ Also Brazil, Mexico



SAMSI programme on UQ

- ▶ Substantial involvement from engineering community
 - ▶ Whereas IFIP more numerical analysts
- ▶ Working group to build understanding between engineers and statisticians
 - ▶ Explain polynomial chaos to statisticians
 - ▶ First meeting held already, next on Thursday
 - ▶ Explain emulators to engineers
 - ▶ Case studies to compare methods
- ▶ Other working groups embracing model discrepancy
 - ▶ In data assimilation
 - ▶ In validation



SIAM/ASA conference

- ▶ North Carolina, April 2-4, 2012
- ▶ MUCM giving 6-hours minitutorial
 - ▶ Elicitation, emulation, calibration (Tony, Peter, Ian)
- ▶ Need to organise minisymposia
 - ▶ i.e. invited sessions
 - ▶ No contributed sessions
 - ▶ SAMSI will organise one or two
- ▶ Opportunity for significant impact



8.7 UCM 2012

▶ Objective

- ▶ Fix venue and dates, set up programme committee
 - ▶ By September 2012

▶ Progress

- ▶ Done!
 - ▶ Sheffield, Kenwood Hall, July 2-4, 2012
 - ▶ Scientific Programme Committee: Tony (chair), Derek Bingham, Peter Challenor, Steve Chick, Jon Helton, David Nott, Olivier Roustant, Tom Santner
- ▶ Jo and Jeremy handling local arrangements
- ▶ SPC now considering invited speakers
 - ▶ 3 UK (or self-financed); 2 Europe (or relatively cheap); 2 North America (etc.)



8.8 New-look website

- ▶ **Objective**
 - ▶ Overhaul website by August 2011
- ▶ **Progress**
 - ▶ Done!
 - ▶ By Jo
 - ▶ She's also created UCM 2012 website

