

GEOSTAT 2011 Canberra ^[1]

Date:

Monday, April 11, 2011 - 09:15 to Friday, April 15, 2011 - 18:30

Body:

Backgrounds

I was contacted last October by Augusto Sanabria (Geoscience Australia; the Australian version of USGS) and asked about a possibility to run our 5-day workshop/course called ?GEOSTAT? down-under (Australia). Apparently, John Maindonald (a senior researcher at Australia National University and one of the main promoters of open source tools / R at ANU) was the first who discovered my book (?A practical guide to geostatistical mapping?) and then told Augusto that this type of workshops is something Australia should also host (I agree ? it is not fair that all GEOSTAT summer schools are held in Europe so that many auzzies are missing all the fun!). Augusto then spoke with Alan Welsh (ANU) and they decided to make their invitation more formal. Luckily, Dylan Beaudette (Natural Resources Conservation Service, USDA) accepted my invitation to join me on this project and we have managed to set the dates and initial programme already in November 2010. Although I have never met Dylan in person, it turned out that we will manage to collaborate smoothly and complement each others with diverse topics and software (SAGA vs GRASS, raster vs FWTtools).

I did not know how many people should we expect and what kind of programme will they anticipate from us, hence I told Augusto to collect more information about their backgrounds, expectations and technical capacities. I did not have time nor resources to promote this event so I simply left it to Augusto and Alan to organize facilities, collect registrations and make all reservations. It finally turned out that the interest in the course was high (we got a total of 35 registrations for this course, some applications had to be rejected on the end). It was a diverse group both in terms of topic: from environmental scientists, sociologists to geologists, veterinarians and climatologists), geographic coverage (Sydney, Melbourne, Canberra, Adelaide, NZ), and ethnic origin: Australian, Japanese, Chinese, German, French... This made this event more regional than local, and definitely inter/multi-disciplinary. Most of the people at this course met each other for the first time and it was nice to see how they slowly begin to realize the main potential and philosophy of open source tools (*?start thinking what you can do for the community, and the community will reward you?*).

A day-to-day programme

The course was held at the Spark-Helmore Theatre within the Australian National University campus. The room (selected by Alan) was perfect: it had an ideal acoustics and just enough space and chairs for everyone. The whole ANU campus seems to be well designed with many green and sport areas, housing facilities and functional educational and research buildings. I should also mention that Canberra is apparently one of the sunniest cities on Earth ? they can

almost guarantee you an average of at least 7 hours of direct sunshine per day. I only had problems (I crashed with a bike) with a small architectural detail ? big concrete balls at the entrance to ANU.



The day-to-day programme of the course can be followed at www.geostat-course.org ^[1] where you can also access all slides and data sets. The first day was focus on the FOSS philosophy and getting the software up and running. The second day we focused on R classes and operations with table / point data. The third day focused on working with gridded maps (MODIS) and on using tools to prepare covariate layers. On the fourth day I gave an overview of spatio-temporal statistics with focus on spatial predictions. On fifth day we had 4 blocks chosen by the participants during the course.

This was a hands-on-software type of training course so we spend about 60% of course running analysis in R + OSGeo which the participants could follow simultaneously on their laptops. I should mention that there were some problems with using the ANU network (very restricting to using some internet protocols and ports) so we could not run all demo's that we originally had on our mind (e.g. how to upload data to Geoserver, how to import open street map data to QGIS; I also could not ftp to some servers). Network capacity and accessibility are definitively factor that need to be improved for future GEOSTAT events.

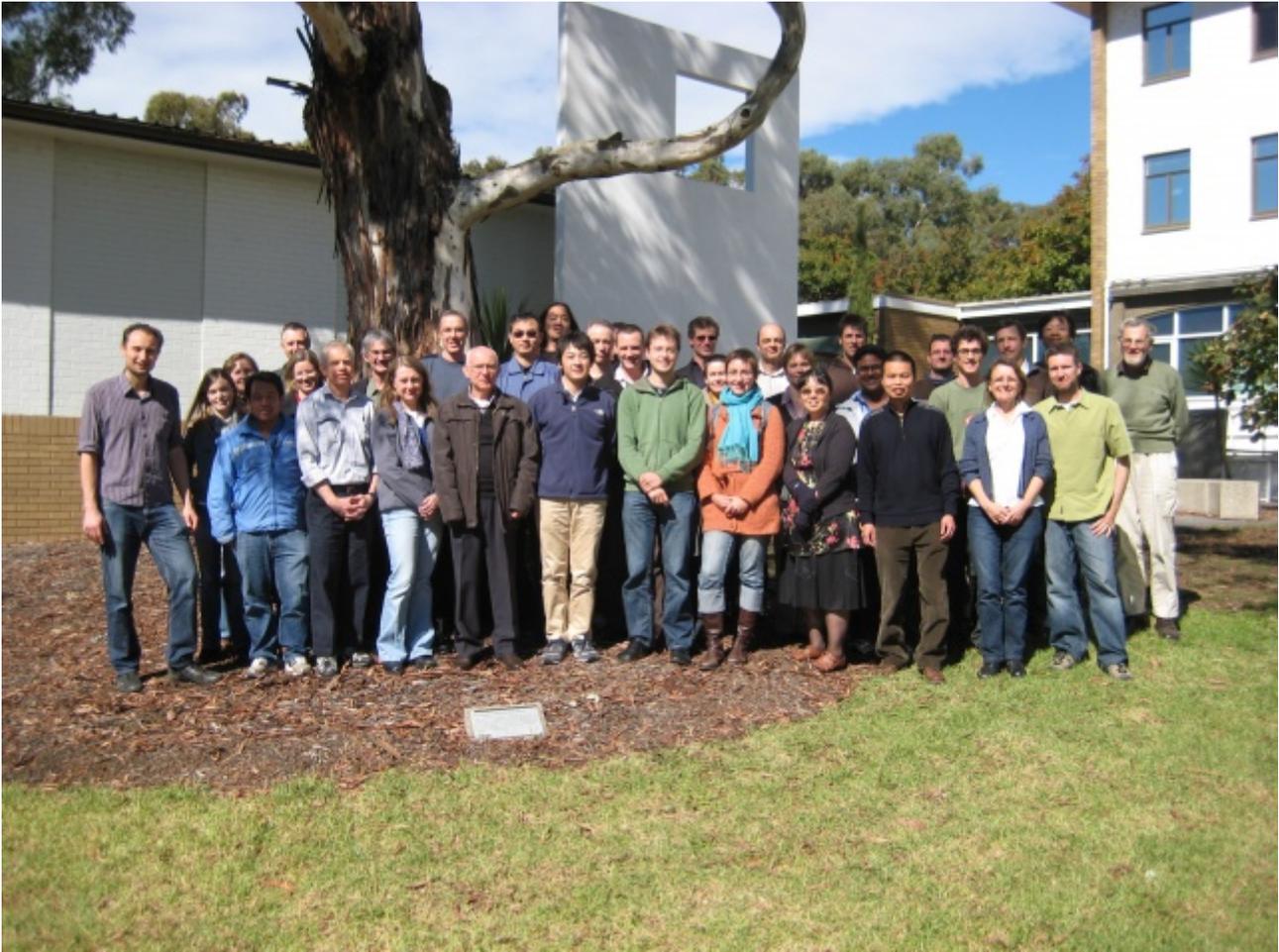
To motivate the course participants to complete the exercises on day 2-4, we have open a 1-on-1 consulting blocks for those participants that complete the daily exercises first. Luckily we had a small room attached to the main theatre where we could sit with the participants and than chat about their work and data / case studies. This was sort of R-sig-geo support live and I think it was much appreciated by the participants. Letter on during the fourth day I

discovered that I have maybe put to difficult exercises for non-specialists so that not much people could follow and produce complete results. Nevertheless, few students (Bernd Gruber / Canberra University, Sarah Bolt / CSIRO, Sydney) showed quite some skill to master tools completely novel to them in a short time and have managed to answer more than 50% of all questions from the course.

We also had two guest lectures by John Maindonald (Centre for Mathematics & Its Applications, ANU) and Graham Williams (Senior director and Chief Data Miner, Australian Taxation Office). Both were closely connected to the topic (let's promote R for academic work and projects). John also run a 2-hour block on how to make your own R package and even add GUI to it. We also got a lot of help from Pierre Roudier (Landcare Research, NZ) who was running together with us around the classroom from the first day and then also gave a demo on using QGIS in combination with R/GRASS. Pierre should have probably been listed as one of the lecturers from the beginning, but I will try to acknowledge his kind support on some similar event in the years to come.

Main conclusions

All in all it has been a very exciting and intensive week. I think that we did manage to present all tools and show cases to the audience and they seem to had an effect. I think that we did also communicate clearly the main messages (?these tools are of high quality, extendible and develop on faster and faster paste?), so it is now to the participants to pick those up and use them for their daily work. I have myself learned a lot from Dylan, John and Pierre but also from some people in the public. The amount of feedback I got from all participants will allow me to revise some of my materials and improve the course content.



Dylan and I are grateful to Alan and Augusto for organizing this event, John for supporting us (John was carrying every day a backpack full of R books ? I estimated that the bag was at least 20 kg!!) and to all participants for their patience and understanding (small technical problems with internet). All this would also not be possible without the support from our home institutions (ISRIC and NRCS), so they should also be on the top of the thank you list.

Preview:



Location_event:

Spark-Helmore Theatre, The Australian National University Canberra
Australia

See map: [Google Maps](#) [2]

AU

Source URL: https://geostat-course.org/GeoSciences_AU_2011

Links

[1] https://geostat-course.org/GeoSciences_AU_2011

[2] <http://maps.google.com?q=%2C+Canberra%2C+%2C+%2C+au>