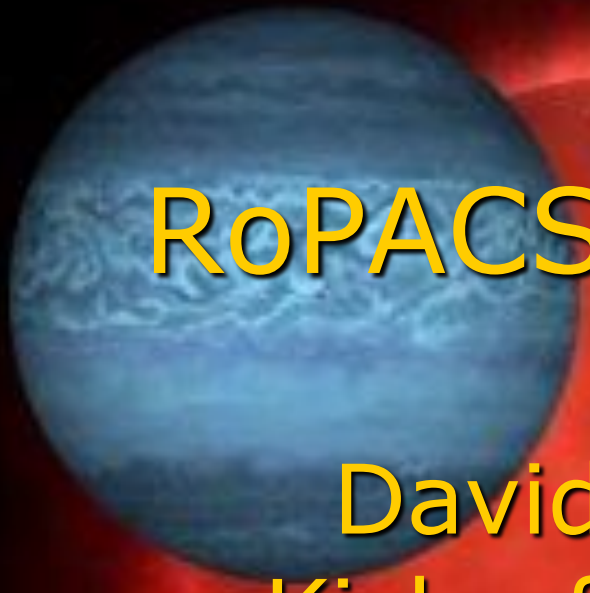
RoPACS overview

David Pinfield

Kick-off meeting

Madrid

28-29 Jan 2009



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What is an ITN ?

- Aims to improve career perspectives of researchers during the first 5 years of their careers
- A group of institutions (universities, research centres, companies) collaborate together
- To recruit researchers to participate in a "joint research training programme", and obtain a range of complimentary skills
- Participation of industry (commercial sector) is important to improve the breadth of the training programme

Researchers that we will employ

E.C. eligibility

1) Nationality:

- Can come from any country in the world
- But cannot be nationals of the network host country where they will work

2) Mobility:

- Generally researchers must move from one country to another to take up a position
- Although they could currently be based in the network host country if they are a foreign national and have been there <12 months in the 3 years prior to recruitment

E.C. eligibility

3) Research experience:

- "Research experience" defined from time that researcher obtained degree that qualifies them to do a PhD (either in their home country or in the host country)
- "Experience" only includes time spent in research, not periods away from it

Early-stage-researchers (ESRs)

- No more than 4 years of full time research experience
- Last for up to 3 years (all RoPACS ESRs are 3yrs)
- ESRs generally study for PhDs

Experienced researchers (ERs)

- Either (i) have a PhD, or (ii) have >4yrs of research experience
- But cannot have >5yrs of research experience
- Last for up to 2 years (all RoPACS ERs are 2yrs)

Spending network funding

Funding for activities carried out by researchers:

- (A) Monthly living & mobility allowance
  - Fixed annual living allowance for ESRs (33,800€) and ERs (52,000€)
  - Monthly mobility allowance (if researcher moves country)
    - 800€/month – family obligations (married and/or dependent children)
    - 500€/month – no family obligations
  - A national correction factor (for cost of living) is then applied (see Annex 3, table 3 of PEOPLE programme)

On a case-by-case basis these allowances must be combined together to fund an employment contract at the host institute

- (B) Travel allowance
  - Like the mobility, this goes directly to the researcher
  - But in fixed annual payments
  - And it scales with distance between origin and host country (see Annex 3, table 2 of PEOPLE programme)

- (C) Career exploratory allowance
  - One-off payment (2000€) direct to each researcher to help with career development (e.g. Job interviews, job fairs etc)

- (D) Participation expenses
  - Of the researchers in the network (e.g. Research related costs, and attending meetings, conferences, training actions)
  - Either 300€ or 600€ per researcher month
  - RoPACS is getting 600€/researcher month!
  - Note: The E.C. Assumes that institutes will provide the basic equipment/infrastructure to carry out the project
  - So be careful when buying equipment !
  - The E.C. sees desk-top PCs as basic infrastructure, so we shouldn't buy them from participation expenses
  - Laptops should be O.K.
  - In general, "non standard" equipment is fine

- (E) Research, training & ToK programme expenses
  - Scales with researchers, but not spent directly on them
  - Implementing the training (advertising network jobs, internal training actions, teaching materials)
  - Coordination between participants (e.g. Network meetings)
- (F) International conference organisation
  - RoPACS conference in Munich at end of network)
- (G) Management costs
  - Personnel costs for non research time
  - Accounted for with time-sheets and the appropriate hourly rate for the personnel
- (H) Overheads
  - No need to answer to the E.C. For these !

General comments about money:

- Please keep a good record of expenditures and what type they are (ABCDEFGH)
  - Important so you don't over (or under!) spend
  - Important for reporting back to the E.C. (after 2 years and at the end of the network)
- Keep receipts for D and E spends
- Keep time-sheets to account for any management money you spend

RoPACS framework: The partners

The nodes (principal hosts for researchers);

- University of Hertfordshire, Hatfield (David Pinfield)
- Institute of Astronomy, Cambridge (Simon Hodgkin)
- Institute de Astrofisica de Canarias, Canary Islands (Eduardo Martín)
- Max-Planck Institut fuer extraterrestriche Physik, Munich (Roberto Saglia)
- Laboratory de Astrofisica Espacial y Fisica Fundamental, Madrid (David Barrado)
- Main Astronomical Observatory, Kiev (Yakiv Pavlenko)

The associated partners;

- Astrium, Stevenage (Craig Brown) – Industrial partner for ESA Cosmic Vision studies
- Science Learning Centre East of England (Alison Redmore) – science education partner
- Dublin Institute for Advance Studies (Carlos del Burgo) – instrumentation, Nahual project scientist
- SIM Laboratory, Lisbon (Andre Moitinho) – Nahual partner
- Universidad Nacional de Educacion a Distance (UNED), Madrid (Luis Sarro) – V.O. tools
- Paris Observatory (Jean Schneider) – SEE-COAST science simulations

RoPACS framework: Research areas

<u>Searching for planets with the transit technique</u>

Surveys and databases linked to RoPACS;

- WFCAM transit Survey (WTS) on UKIRT
- Pre-OmegaTrans on ESO2.2/WFI
- OmegaTrans on VST/OmegaCam
- PanPlanets with PanSTARRS
- WFCAM Science Archive, AstroWISE and Gaudi

(Talks by Simon Hodgkin, Jayne Birkby, Roberto Saglia and Johannes Koppenhöfer on some of these)

High-res spectroscopy and the radial velocity technique

Ongoing measurement/development programmes;

- Nahual on GranTe Can
- UKIRT Planet Finder (UPF)
- HRS on HET
- Pathfinder on HET
- CRIRES on VLT
- Tomographic software tools developed for exoplanet detection

(Talks by Hugh Jones, John Barnes and Eduardo Martín on some of these)

Planet measurements

(including radii, density, emitted light, atmospheric transmission)

Ongoing, planned/potential, and future programmes with;

- AO (e.g. NACO on VLT, HiCIAO on Subaru)
- GranTeCan
- MIRI on JWST
- HST
- Spitzer

(Talks by Mari Cruz Galvez, Enric Palle, David Barrado on some of these)

Understanding cool stars hosts

Theoretical model atmosphere software being developed/exploited;

- WITA6
- Phoenix

Proper motion databases for wide companion identification

- SuperCOSMOS, SDSS, UKIDSS

(Talks by Yakiv and Carlos on some of these)

Future space-based observatories and ESA Cosmic Vision

Community interest and planning/simulations of;

- SEE-COAST
- SPICA
- PLATO

Engineering phase A studies at Astrium Mission Systems in Stevenage

(Talk by Craig Brown on Astrium)

Researcher projects

- RoPACS will fund 11 ESRs and 4 ERs
- Somewhat above average size: Total funding is 3.2M€, and a typical multi-partner network would be ~2.5M€

Distribution across host and area;

- 3 ESRs (IoA, UH, MPE) and 1 ER (IoA) in the area of "Searching for planets with the transit technique"
- 2 ESRs (IAC and MPE) and 2 ERs (IAC and UH) in the area of "High res spectroscopy and the RV technique"

Distribution across host and area (cont'd);

- 3 ESRs (IAC and LAEFFx2) and 1 ER (MPE) in the area of "Planet measurements"
- 2 ESRs (MAO and UH) in the area of "understanding cool star hosts"
- 1 ESR (UH) in the area of future space-based observatories and ESA Cosmic Vision)

(More detail of work packages is in table on p9-10 of the RoPACS "Annex I Description of work" document)

Training on the network: Research and courses

- By research – RoPACS undertakes to provide 492 person months of ESR and ER research training financed by the contract
- Local research training should be combined with some collaborative visits to other partners (see p12 of Annex I for approximate visit plan)
- Complimentary skills training – staff development courses

Training on the network

Network-wide training actions

- Using large telescopes: ~2 week visits to IAC for experience with telescopes on Teide
- Using small telescopes: Visit to UH's observatory for training on small telescopes
- Some seminars by Astrium staff + tour of space craft manufacturing facilities
- Educational training at the Science Learning Centre
- Use of the "Outreach Office" in Madrid to train researchers in promoting their work

Training on the network: Events

- Meetings – a Kickoff meeting + 2 other meetings per year
  - In general: 1 network-wide meeting and 1 team leader meeting per year
  - Once researchers recruited, meetings will include a Management Committee (MC) meeting (MC=node leaders + other UH members + an ESR rep)
- Some meetings to be phased with other events for added impact
  - JeNAM (late April 2009)
  - Canary Islands Winter School
  - ESAC young researcher programme
  - International conference with ~50 external participants (at MPE, end of network)

On-line monitoring

- I am setting up a series of project management pages on the RoPACS website
  - To facilitate monitoring of network "Indicators of progress" (see B3.1 in Annex I)
- These will be password protected for RoPACS leaders to follow
- I will request appropriate forms of input to this monitoring process at regular intervals (from network leaders and researchers)

Ongoing recruiting

- The recruitment process is at the advertising stage for the ESRs
- All ESRs need to be recruited during the first year, starting no later than Dec 1st 2009
- I will circulate first batch of applications to node leaders at end of Feb
- Aim to recruit first batch of ESRs starting ~April/May
- ERs to be advertised individually by their hosting node
- The earliest RoPACS ER is at IoA (transits)
- The other 3 ERs will be advertised later in 2009

The end