

Parallel design patterns

ARCHER course

Summary



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The general idea

- The same concepts and problem types appear in many different places
- We don't want to waste time re-inventing the wheel
- Languages, machines and applications change frequently but ideas and concepts recur

- They should help you to think about a solution to a problem before any implementation in code
 - Rarely one right answer, often involves trade-offs

Next steps.....

- Worked solutions for all the practical are available
 - So if you haven't yet had a chance to complete these then we suggest you do so
- We are happy to chat with you about how these concepts and ideas relate to your own problem and possible ways of structuring the parallelism there
- Lots of resources online.....

Online resources

- <http://snir.cs.illinois.edu/patterns/patterns.pdf>
- <http://snir.cs.illinois.edu/PPP.html>
- [http://parallelcomp.github.io/Lecture4_2\(betterversion\).pdf](http://parallelcomp.github.io/Lecture4_2(betterversion).pdf)
- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.51.5013&rep=rep1&type=pdf>
- <https://hillside.net/plop/plop2k/proceedings/Massingill/Massingill.pdf>
- <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.58.4709&rep=rep1&type=pdf>

Questions after the course?

- Feel free to email us
 - n.brown@epcc.ed.ac.uk
 - m.bareford@epcc.ed.ac.uk

Getting access to ARCHER

- Standard research grant
 - Request Technical Assessment using form on ARCHER website
 - Submit completed TA with notional cost in Je-S
 - Apply for time for maximum of 3 years
- ARCHER Resource Allocation Panel (RAP)
 - Request Technical Assessment using form on ARCHER website
 - Submit completed TA with RAP form
 - Every 6 months
- Application for computer time only
 - Instant Access – Pump-Priming Time
 - Request Technical Assessment using form on ARCHER website
 - Submit completed TA with 2 page description of work

ARCHER Driving Test

- https://www.archer.ac.uk/training/course-material/online/driving_test.php
- On successful completion of the Driving Test
 - invited to apply for an account and awarded an allowance of 1200 kAUs (80,000 core-hours) to use to run jobs over a period of up to 12 months.
- Test covers various specific features of ARCHER
 - see “Material specific to ARCHER” at <https://www.archer.ac.uk/training/course-material/online/index.php>

Support

- Helpdesk
 - Email support@archer.ac.uk
 - via ARCHER SAFE <http://www.archer.ac.uk/safe>
 - phone: +44 (0)131 650 5000
 - By post, to:
ARCHER helpdesk
EPCC
James Clerk Maxwell Building
Peter Guthrie Tait Road
EDINBURGH EH9 3JZ
- <http://www.archer.ac.uk/documentation/>

Paperwork

- You will receive an email early next week
 1. Feedback link – please give us some feedback as it's how we improve these courses
 2. Instructions for obtaining certificate of attendance

They are really good at sending these out, but if you don't get this by Wednesday next week then you can email support@archer.ac.uk