

Agenda “in silico experimentation” course 2014

Please sign up and join the
myExperiment group: Bonn Workshop Sep 2014
<http://www.myexperiment.org/groups/1267>

Monday 2014-09-01 – Introductions and basics

- 10:00-10:15 Intro to the workshop – Heiko
- 10:15-11:00 Introduction to web services, workflows and e-science approaches
[\[0_Bonn_e-science_webservices_workflows.pdf\]](#)
- 11:00-11:30 coffee
- 11:30-12:00 Finding and using services (BioCatalogue) [[demo](#)]
A Practical Introduction to Taverna Workflows
[\[1_Bonn_Introduction_Tutorial.pdf\]](#)
- 12:00-13:00 Taverna Exercises
Installing Taverna [\[T-installing_Taverna.pdf\]](#)
Building a simple workflow [\[T-Simple_workflow.pdf\]](#)
REST services from BioCatalogue [\[T-REST_biocatalogue.pdf\]](#)
- 13:00-14:00 Lunch
- 14:00-15:30 Taverna Exercises (continued)
Shims [\[T-Shims_Beanshell.pdf\]](#)
Spreadsheet import [\[T-Spreadsheet_import.pdf\]](#)
REST Services [\[T-REST_services.pdf\]](#)
XPath [\[T-Xpath.pdf\]](#)
- 15:30 Wrap up of issues and summary of the day - Heiko

Tuesday 2014-09-02 – Workflows in Depth

- 10:00-11:00 Review of yesterday’s exercises
Asynchronous service pattern [\[3_asynchronous-services.pdf\]](#)
- 11:00-11:30 Coffee
- 11:30-13:00 Taverna advanced exercises [\[T-myExperiment.pdf\]](#)
Re-using workflows from myExperiment
Combining workflows from myExperiment
GO associations
Simple text mining
Workflow features [\[T-Advanced-Taverna.pdf\]](#)
List handling
Looping asynchronous services
Looping
Control links
Nested workflows [\[T-Nested_workflows.pdf\]](#)
Retries
Parallel Service Invocation [\[T-Advanced-Taverna.pdf\]](#)
Taverna Components [\[T-Components.pdf\]](#)
- 13:00-14:00 Lunch
- 14:00-16:00 Taverna advanced exercises (cont)

16:00 Wrap up of issues and summary of the day - Heiko

Wednesday 2014-09-03 – Integrations and Workflows in Practice

10:00–11:00 Taverna Command Line Tool [demo]

Reusing workflows (Sharing your workflows in myExperiment) [[demo](#)]

Taverna Online & Running Workflows via the Portal [demo]

(Workflow with R Script [demo])

11:00-11:30 Coffee

11:30 12:00-13:00 Exercises:

External tool [[T-Tool_service.pdf](#)]

Taverna Interaction Service [[T-Interactions.pdf](#)]

R scripts [[T-RShell.pdf](#)]

Bio-diversity research example [[T-biodiversity.pdf](#)]

13:00-14:00 Lunch

14:00-16:00 Finish advanced exercises/Design your own workflow [students]

Thursday 2014-09-04 – RNAseq analysis workflow (Heiko Schoof)

10:00–10:30 Introduction to RNAseq analysis using Cufflinks

10:30-11:00 RNAseq workflow

11:00-13:00 Exercise

13:00-14:00 Lunch

14:00-16:00 Finish exercises and discussion of results

Friday 2014-09-05 – Final discussion (Martin Hofmann-Apitius)

10:00–12:00 Presentation of workshop results and final discussion