

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](#)]
 - Reusing workflows (Sharing your workflows in myExperiment) [[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 [[2_Bonn_myExperiment_Services_iteration_paralell.ppt](#)]

 - 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]

Taverna Online & Running Workflows via the Portal [demo]

(Workflow with R Script [demo])

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

11:00-11:30 Coffee

11:30 12:00-13:00 Extra exercises

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

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

Bio-diversity research example [\[4_Bonn_BioVel_TavernaTutorial.ppt\]](#)

13:00-14:00 Lunch

14:00-14:30 14:30-16:00 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