Evaluating and Improving World-Wide HYPE

THEMES:

- Improving an existing model setup for a part of the world (your area of interest will be delivered by SMHI)
- Include your own input data (river flow observations, catchment delineation, routing, landcover, water bodies, management, forcing data P/T)
- Calibration strategies and stepwise parameter estimation using multi-source data (provided by SMHI)

NOTE: You should bring your own data to the course (e.g. time-series of river flow observations, catchment delineation, routing, land-cover, waterbodies, regulation/irrigation, forcing data P/T).

Monday 4th of September

Room: Almagrundet

Time	Task	Responsible Lead
8:00	Installation of software and test runs on participants computers (individual WWHYPE model setups, WHIST, R, HYPEtools, QGIS).	Msc Kristina Isberg, Dr Lorna Little, Dr Lotta Pers, Jörgen Rosberg, Dr Alena Bartosova, Dr Rafael Pimentel, Dr Louise Crochemore
9:00	Welcome and Introduction to HYPE, examples of HYPE applications, and the HYPE Open Source Community	Dr Berit Arheimer Dr Lorna Little
9:15	Lecture: the HYPE model	Lic Göran Lindström
10.15	*COFFEE break – photo of participants*	
10.45	Demo: visualisation/result management with HYPEtools	Dr Alena Bartosova
11:00	Lecture: World Wide HYPE	MSc Kristina Isberg
12:00	*LUNCH break*	
13:00	Introduction to exercises on improving the model set-up (using the individual model domains selected by participants)	Dr Abdulghani and Kristina
13:45	Short introduction to WHIST Exercise: Check and change geodata Exercise: Upload data in Qobs files	Abdulghani and Kristina
14:45	Exercise: Change forcing data and forckey Exercise: Adding a missing lake/reservoir	Abdulghani and Kristina (Jörgen Rosberg)
15.45	*COFFEE break*	
16:00-18:00	Exercises: Evaluate geodata against other sources (Landuse, routing, catchment delineation, sinks, lakes, wetlands, floodplains) on individual pieces of WWHYPE and/or preparation of Qobs from your own sources.	Abdulghani and Kristina (Jörgen Rosberg)
19.00	*Joint dinner downtown (SMHI pays!)*	*(optional)*

SMHI

Schedule of the open HYPE course 2017

Tuesday 5th September

Room: Almagrundet

Time	Task	Responsible Lead
9:00	Lecture: HYPE process description and Calibration	Göran Lindström
10:00	Exercise: Manual calibration of single sites (using individual domains selected by participants)	Göran, Jafet, Kristina, Charlotta, Ilias, Louise, Johan, Alena, Luis, Abdulghani, Rafael
12:00	*LUNCH break*	
13.00	Lecture: Improving large-scale HYPE models through stepwise process refinement	Dr Jafet Andersson
14:00	Exercise: Analysing large-scale HYPE model performance (in the individual domains selected by participants)	Jafet, Kristina, Charlotta, Ilias, Louise, Johan, Alena, Luis, Abdulghani, Rafael
15.30	*Coffee break*	
16:00	Lecture: Automatic calibration in HYPE	Dr Jafet Andersson
16.30-18:00	Exercise: Automatic calibration in practice (in the individual domains selected by participants).	Jafet, Kristina, Charlotta, Ilias, Louise, Johan, Alena, Luis, Abdulghani, Rafael
19.00	*Joint dinner downtown (at your own cost)*	*(optional)*

Wednesday 6th September

Room: Almagrundet

Time	Task	Responsible Lead
9:00	Lecture: HYPE calibration using different open data sources (obs.data and EO-data) and different calibration criteria	Dr Ilias Pechlivanidis
10:00	Exercise: individual choice to continue improving your model (input data or calibration)	ALL from day 1 and 2
11:30	Sum-up, course feedback and open discussion of potentials for the WW-HYPE community	Berit/ALL from day 1 and day 2
12:00	*LUNCH*	