

Modelling Hydrology and Global change

16-20th January 2023

All sessions are to be held on the video conferencing platform **Gather.town** except the Keynote talks, which will be on **Zoom**. For instructions on how to use Gather and a link for entering the online space, please see <https://www.tobymarthews.com/gather.html>.

All times are UK time (UTC+00:00): Green = Morning session, Blue = Afternoon session

MON - 16th Jan	<p>INTRODUCTION TALKS 9-10am: Presentations by Simon Dadson, Toby Marthews and Marcia Spencer in the Wittenham Room (if you can't find this on Gather.town, use the Locate facility to find Toby who will be there).</p> <p>09:00-9:15 Simon Dadson: Welcome to the Hydro-JULES Winter School, aims and objectives</p> <p>09:15-10:00 Toby Marthews & Marcia Spencer: Q&A / Introduction to Hydro-JULES and the planned training this week, Gather.town and Datalabs</p> <p>ICE BREAKER (Students introduce themselves) Explore resources uploaded into the Gather space</p> <p>10:00-10:30 Screen break</p> <p>10:30-12:00 GRAND TOUR of the Hydro-JULES project in a series of 15 min 'speed' talks in the Wittenham Room on Gather.town</p> <p>10:30-10:45 WP1 WP1 Lead</p> <p>10:45-11:00 WP2 WP2 Lead</p> <p>11:00-11:15 WP3 WP3 Lead</p> <p>11:15-11:30 WP4 WP4 Lead</p> <p>11:30-11:45 WP5 WP5 Lead</p> <p>11:45-12:00 WP6 WP6 Lead</p> <p>12:00-13:00 Lunch break</p> <p>13:00-14:30 WORKSHOP 1: Demonstration of JULES on JASMIN (Meet @ JULES & Rose Room)</p> <p>14:30-15:00 Screen break</p>
----------------------------------	---

	<p>15:00-16:00 WORLD CAFÉ Science Discussions #1 (<i>Meet @ The World Café for your Group</i>).</p> <p>16:00 End of day</p>
<p>TUES - 17th Jan</p> <p>Theme: The Water Cycle Above and At the Surface</p>	<p>ZOOM KEYNOTES 09:00-10:30am: Live presentations followed by a live Q&A on Zoom</p> <p>09:00-09:30 Controls of evaporation from above and below the surface (Eleanor Blyth).</p> <p>09:30-10:00 The importance of observations in understanding past, present and future hydrological variability (Jamie Hannaford)</p> <p>10:00-10:30 Q&A Session (on Zoom)</p> <p>10:30-11:00 Screen break</p> <p>11:00-12:30 VIRTUAL FIELD TRIP 1: River discharge measurement technologies and techniques. An exploration of the tools and methods for measuring river discharge, including floods and droughts and the challenges posed by a changing climate (<i>Meet @ ArcBoat table, Wittenham Room</i>)</p> <p>12:30-13:30 Lunch break</p> <p>13:30-14:30 WORKSHOP 2: JULES Point simulations (<i>Meet @ JULES & Rose Room</i>)</p> <p>14:30-15:00 Screen break</p> <p>15:00-16:00 WORKSHOP 3: JULES Gridded simulations (<i>Meet @ JULES & Rose Room</i>)</p> <p>16:00 End of day</p>
<p>WEDS - 18th Jan</p> <p>Theme: The Water Cycle At and Below the Surface</p>	<p>ZOOM KEYNOTES 09:00-10:30am: Live presentations followed by a live Q&A on Zoom</p> <p>09:00-09:30: Modelling groundwater at the British mainland scale - so far so good? A summary of the current progress and the challenges to come (Andrew Hughes)</p> <p>09:30-10:00: Groundwater interactions with the land surface fluxes. Introduction of a Dynamic Groundwater Scheme into the JULES LSM (Alberto Martínez de la Torre)</p> <p>10:00-10:30 Q&A Session (on Zoom)</p> <p>10:30-11:00 Screen break</p> <p>11:00-12:30 VIRTUAL FIELD TRIP 2: JASMIN – a globally unique data analysis facility (<i>Meet @ Jasmin room</i>)</p> <p>12:30-13:30 Lunch Break</p>

	<p>13:30-14:30 WORKSHOP 4: Intro to NERC DataLabs and NetCDF (Meet @ Datalabs Room)</p> <p>14:30-15:00 Screen break</p> <p>15:00-16:00 WORLD CAFÉ Science Discussions #2 (Meet @ The World Café for your Group)</p> <p>16:00 End of day</p>
<p>THURS -19th Jan</p> <p>Theme: Applications & Engagement</p>	<p>ZOOM KEYNOTES 09:00-10:30am: Live presentations followed by a live Q&A on Zoom</p> <p>09:00-09:15 Combining JULES with observations to improve soil moisture estimates (Elizabeth Cooper)</p> <p>09:15-09:30 Soil moisture monitoring from space (Maliko Tanguy)</p> <p>09:30-09:45 Innovations in predicting inundation and flooding in the Hydro-JULES project (Toby Marthews)</p> <p>09:45-10:00 Data Assimilation for Hydrological Forecasting (Michael Eastman)</p> <p>10:00-10:30 Q&A Session (on Zoom)</p> <p>10:30-11:00 Screen break</p> <p>11:00-12:30 VIRTUAL FIELD TRIP 3: How we measure land surface to atmosphere fluxes across our world-leading national network of eddy covariance flux towers (Meet @ Flux Tower table, Wittenham Room)</p> <p>12:30-13:30 Lunch break</p> <p>13:30-14:30 WORKSHOP 5: Intro to the Hydro-JULES modelling framework (Meet @ Datalabs room)</p> <p>14:30-15:00 Screen break</p> <p>15:00-16:00 WORKSHOP 6: Modelling and validation in NERC Datalabs (Meet @ Datalabs Room)</p> <p>16:00 End of day</p>
<p>FRI - 20th Jan</p>	<p>09:00-10:30 TOPICS FROM THE FLOOR / DISCUSSION WITH ALL KEYNOTE SPEAKERS: Topics chosen during the week to be discussed (Wittenham Room).s</p> <p>Students to fill out the evaluation form (uploaded in the Lobby on Gather.town)</p> <p>10:30-11:00 Screen break</p> <p>11:00-12:15 WORLD CAFÉ Informal time. The Gather.town space is open for people to meet/chat about anything that has arisen in the school (Meet @ The World Café for your Group).</p>

	12:15-12:30	Final words and close (Simon Dadson)
	12:30	Winter School ends