<table>
<thead>
<tr>
<th>Theme</th>
<th>Subtheme</th>
<th>Session</th>
</tr>
</thead>
<tbody>
<tr>
<td>The healthy river</td>
<td>Basin scale sediment fluxes observations (Special Session)</td>
<td>Basin scale sediment fluxes observations (4.1)</td>
</tr>
<tr>
<td></td>
<td>Instream wood: restoration opportunities, flood-related hazards and management practices (Special Session)</td>
<td>Applications (4.2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Flume experiments (4.3)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Numerical modelling (4.4)</td>
</tr>
<tr>
<td></td>
<td>Monitoring in eco-hydraulic research: new developments in facing the challenges of scales (Special Session)</td>
<td>Monitoring in eco-hydraulic research: new developments in facing the challenges of scales (4.5)</td>
</tr>
<tr>
<td>Solutions for impacted environments</td>
<td>Building with nature (4.6)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Fish passage (4.7)</td>
<td></td>
</tr>
<tr>
<td>Vegetated flows</td>
<td>Hydrodynamics (4.8)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Interaction with sediment (4.9)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Surface and bed (4.10)</td>
<td></td>
</tr>
</tbody>
</table>
4.1 Basin scale sediment fluxes observations
1. Long-term modeling of soil loss and fluvial transport processes in a mountainous semi-arid basin, southern Spain, Juan Francisco Leiva, Agustín Millares, Javier Herrero, María Bermúdez, Marina Cantalejo.
2. Contribution on understanding sediment alteration in an Alpine catchment; lithology matters!, Alessandro Cattapan, Paolo Paron, Michael McClain, Hervé Piégay, Mario Franca.
3. Four Years of Bedload Transport Measurements in the Swiss Mountain River Albula, Dieter Rickenmann, Tobias Nicoller, Stefan Boss, Alexandre Badoux.
4. Sediment supplies in Walloon waterways: basin-scale monitoring and fluxes analysis, Catherine Swartenbroekx, Gil Zorzán, François-Xavier Salembier, Didier Bousmar.
5. The sediment challenge of Swiss river corridors interrupted by man-made reservoirs, Pedro Manso, Christian Moertl, Giovanni de Cesare.
6. Investigating the geomorphic change in the Rio Cordon basin (Italy) after Vaia Storm, Lorenzo Martini, Lorenzo Picco, Riccardo Rainato, Giacomo Pellegrini, Marco Cavalli, Mario Lenzi.

4.2 Applications
1. An extraordinary event changed the (morphological) appearance of a famous Alpine stream, Riccardo Rainato, Lorenzo Picco, Giacomo Pellegrini, Lorenzo Martini, Luca Mao, Mario Lenzi.
2. How to deal with large wood recruitment after wildfires Analysis, aspects and considerations for improving post-fire management, Lorenzo Picco, Cordelia Scalari, Lorenzo Martini, Giacomo Pellegrini, Daniel Sanhueza, Bruno Mazzorana, Andrés Iroumé, Lorenzo Faes.
3. Retention and mobility of large wood in a Central European meandering river, Tomáš Gala, Václav Škarpuh, Radek Tichavský.
4. Fish habitat restoration using large wood: linking stream geomorphic change and fish response, Catalina Segura, Christopher Lorion, Amelia Yeager.

4.3 Flume experiments
1. Flume experiments on the geomorphic effects of large wood in gravel-bed rivers, Heide Friedrich, Diego Ravazzolo, Gabriel Spreitzer, Jon Tunnicliffe.
2. Experimental parameter study of local morphological changes due to large wood, Katinka Koll, Manuela König.
3. Effect of wood accumulation on sediment continuity at permeable sediment traps, Isabella Schalko, Virginia Ruiz-Villanueva, Volker Weitbrecht.
5. Flume study on driftwood jam and flood damage to house around a bridge, Takaaki Okamoto, Michio Sanjou, Tomohiro Someya.
6. Testing the efficiency of a woody debris retention structure for medium or small-sized rivers, Diego Panici, Prakash Kripakaran.
7. Scour profiles downstream of wood structures in vegetated channels, Stefano Pagliara, Michele Palermo, Deep Roy.
4.4 Numerical modelling

1. Computations on driftwood jamming around obstacles with a 3D-3D model, *Ichiro Kimura*.


5. Large wood and the concept of ecosystem services, *Zuzana Poledniková, Tomáš Galia*.

6. Did you catch my drift - Calculating the effect of instream wood buildup on bridge backwater, scour, and hydrodynamic loads, *David Froehlich, Robert Elliot*.

4.5 Monitoring in eco-hydraulic research: new developments in facing the challenges of scales

1. Experimental study on dissolved oxygen transfer into a local embayment connected to an open-channel flow, *Michio Sanjou, Takaaki Okamoto, Yuji Sugihara*.

2. How to address colmation best - Field and laboratory investigations at different scales, *Markus Noack, Lydia Seitz, Stefan Haun, Assem Mayar, Silke Wieprecht*.

3. An estimation of the sand suspension in alpine rivers during a dam flushing event, *Benoît Camenen, Fabien Thollet, Robin de Angelis, Alexis Buffet*.

4. Investigation of fine structures in stage-discharge relations based on high-frequency streamflow time series in a gravel-bed river, *Kiyosi Kawanisi, Mohamad Basel Al Sawaf*.

5. Bedload transport measurement in a Japanese gravel river using synchronized hydrodynamic and hydroacoustic pressure sensing, *Ryota Tsubaki, Juan Francisco Fuentes-Perez, Satomi Kawamura, Jeffrey A. Tuhtan, Keizo Sumitomo*.


4.6 Building with nature

1. How to design wood accumulation patches to increase flow variability and deposition - a flume study, *Isabella Schalko, Heidi Nepf*.

2. Segmentation of topographic change by geomorphic units to assess physical habitat transitions in a restored river, *Georgios Maniatis, Richard Williams, Trevor Hoey*.


4.7 Fish passage
1. RiverFlow2D with UAV to improve ecological corridor of wild creek in Taiwan- The case study in Geng-fang Nanshih Creek, Chin-Hsiang Tu, Hung-Pin Huang, CHING-YA LI.

4.8 Hydrodynamics
1. Floodplain flow resistance in case of a sparse mixture of plants at low relative submergences, Kaisa Vastila, Juha Järvelä, Walter Box.
2. Experimental investigations with foliated flexible plants at different levels of submergence, Stephan Niewerth, Jochen Aberle.
3. On the effects of vegetated bars on river hydrodynamics, Giada Artini, Luca Solari, Simona Francalanci, Giulio Callback.
5. Unsteady open-channel flows over rough bed with and without emergent rigid vegetation: A laboratory experiment, Jnana Ranjan KHUNTIA, Sébastien PROUST, Kishanjit Kumar KHATUA.

4.9 Interaction with sediment
1. Sediment transport through submerged vegetation, José Antonio Bonilla Porras, Aronne Armanini, Alessandra Crosato.
2. The impact of vegetation on sedimentation on alluvial bars along the Carampangue River, Chile, José Aliaga, Oscar Link, Fabian Hellwig, Anita Laborde, Felipe Jeldres, Esteban Flores.
3. Investigation of Hydrodynamics and Sediment Transport within Emergent Vegetation Canopy, Pallas Ranjan, Jorge San Juan, Paul Fischer, Rafael Tinoco.
4. Influence of vegetation roots on fluvial geomorphology in the riparian zone with low stream power, Jin-Fu Li, Su-Chin Chen.

4.10 Surface and bed
1. From substrate to surface: the effect of vegetation-generated turbulence on surficial gas transfer, Rafael Tinoco, Chien-Yung Tseng, Andres Prada.
2. The expansion of riparian vegetation due to the change of precipitation pattern, Won Kim, Sinae Kim.
3. Flow structure and mean residence time in floodplain river landscapes, Teresa Serra, Jordi Colomer, Marianna Soler, Estel Font.
4. Experimental results and modelling of pressure loss generated by flexible structures placed in a turbulent flow, Thomas LARRIEU, Gérard PINEAU, Laurent DAVID, Damien CALLUAUD.


6. Sinuous rivers in peat, Xingyan Guo, Gary Parker, Gaku Tanaka, D. Chen, Zhi Li, Marcelo H. Garcia.