<table>
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<tr>
<th>Room Name</th>
<th>The Theatre</th>
<th>The Gallery</th>
<th>The Space</th>
<th>The Blueroom</th>
<th>Q119</th>
<th>Q120</th>
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<tbody>
<tr>
<td>Location</td>
<td>The Helix, Ground Floor</td>
<td>The Helix, Level 2</td>
<td>The Helix, Ground Floor</td>
<td>The Helix, Level 2</td>
<td>Business School Level 1</td>
<td>Business School Level 1</td>
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<tr>
<td>09:00 - 10:00</td>
<td>Plenary Session 0049: A broken mirror? The foundations of thermodynamics and the failure of mathematics to reflect the physics of David Sands</td>
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<td>10:00 - 10:30</td>
<td>Refreshments</td>
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<tr>
<td>Session Title</td>
<td>Strand 1: Teaching Physics Concepts: Sharing Practice</td>
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<td>Chairperson</td>
<td>Magdalena Kersting</td>
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<td>Discussant</td>
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| 10:30 - 10:50| 033: Interdisciplinary science concept maps to orient middle secondary school students learning outcomes  
Ovidiu Florin Caltun |
| 10:00 - 10:30| 0082: Teaching general relativity in upper secondary schools: An educational reconstruction  
Magdalena Kersting |
| 10:50 - 11:10| 0127: Photosynthesis: bringing biology into a physics lab  
Gerrit Kuik |
| 10:30 - 10:50| 0020: Teachers’ evaluation of an augmented reality-based motion graphing application  
Resty Collado |
| 10:00 - 10:30| 0011: Lessons from two decades of hybrid and online physics courses at Michigan State University  
Gerd Kortemeyer |
| 10:50 - 11:10| 0117: The important role of assessment conversations in the undergraduate student physics laboratories  
Jaap Buning |
| 11:10 - 11:30| 0122: Transfer of conceptual knowledge to solve conventional problems  
Clemens Wagner |
| 11:00 - 11:30| 0087: Teaching General Relativity with sector models: The field equations  
Ute Kraus |
| 11:10 - 11:30| 0128: Blended learning in an introductory physics course for science programs  
Tetyana Antimirova |
| 11:30 - 11:50| 0098: Preliminary results of the inquiry on effectiveness of concept knowledge teaching by physics experiments  
Karel Havlicek |
| 11:00 - 11:30| 0015: From confusion to interest: An examination of pedagogy in a physics video hook intervention  
Martin McHugh |
| 11:30 - 12:00| 0141: Understanding and implementing laboratory activities: What, why and how of recipe, guided and open inquiry  
Manjula Sharma |
| 11:50 - 12:00| 0174: Testing possible explanations for prevalent errors on conceptual questions: An example from balancing  
Paula Heron |
| 12:00 - 12:30| Discussion |
| 12:30 - 13:00| Discussion |
| 13:00 - 14:00| Lunch |