<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Event</th>
<th>Speaker</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday, March 04, 2019</td>
<td>12:00am-12:00am</td>
<td><strong>Group, Lie and Number Theory</strong> -- No Talk ()</td>
<td>Winter break</td>
<td>4088 East Hall</td>
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<tr>
<td></td>
<td>12:00am-12:00am</td>
<td><strong>Geometry &amp; Physics</strong> -- Winter Break ()</td>
<td>TBA</td>
<td>4096 East Hall</td>
</tr>
<tr>
<td>Tuesday, March 05, 2019</td>
<td>4:00pm-5:00pm</td>
<td><strong>Colloquium Series</strong> -- Winter Break ()</td>
<td>Winter Break</td>
<td>1360 East Hall</td>
</tr>
<tr>
<td>Wednesday, March 06, 2019</td>
<td>2:30pm-4:00pm</td>
<td><strong>Student Machine Learning</strong> -- Israel Diego-Guerra (University of Michigan)</td>
<td>Sequence Modeling: Recursive and Recurrent Networks</td>
<td>3866 East Hall</td>
</tr>
<tr>
<td>Friday, March 08, 2019</td>
<td>12:00am-12:00am</td>
<td><strong>Combinatorics</strong> -- ()</td>
<td>Spring break, no seminar</td>
<td>2866 East Hall</td>
</tr>
</tbody>
</table>
Abstracts for the week of March 3rd, 2019 - March 9th, 2019

**Group, Lie and Number Theory**
Monday, March 04, 2019, 12:00am-12:00am
4088 East Hall
No Talk ()
*Winter break*

**Geometry & Physics**
Monday, March 04, 2019, 12:00am-12:00am
4096 East Hall
Winter Break ()
*TBA*

**Colloquium Series**
Tuesday, March 05, 2019, 4:00pm-5:00pm
1360 East Hall
Winter Break ()
*Winter Break*

**Student Machine Learning**
Wednesday, March 06, 2019, 2:30pm-4:00pm
3866 East Hall
Israel Diego-Guerra (University of Michigan)
*Sequence Modeling: Recursive and Recurrent Networks*
Recurrent networks are networks that can be trained to learn time dependence of the variables. This can be thought of as a neural network where the computational graph is a directed path. This chapter extends the idea of a computational graph to include cycles. These cycles represent the influence of the present value of a variable on its own value at a future time step. Such computational graphs allow us to define recurrent neural networks. We then describe many different ways to construct, train, and use recurrent neural networks.

**Combinatorics**
Friday, March 08, 2019, 12:00am-12:00am
2866 East Hall
()  
*Spring break, no seminar*