<table>
<thead>
<tr>
<th>Date</th>
<th>Time</th>
<th>Seminar</th>
<th>Speaker</th>
<th>Location</th>
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<tbody>
<tr>
<td>Monday, April 20, 2020</td>
<td>3:00pm-3:50pm</td>
<td><strong>Student Dynamics</strong> -- Jasmine Powell (UM)</td>
<td>TBA -- 3866 East Hall</td>
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<td>4:10pm-5:00pm</td>
<td><strong>Group, Lie and Number Theory</strong> -- Hang Xue (University of Arizona)</td>
<td>TBA -- 4096 East Hall</td>
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<tr>
<td>Tuesday, April 21, 2020</td>
<td>3:00pm-4:00pm</td>
<td><strong>Student Geometry/Topology</strong> -- Bradley Zykoski ()</td>
<td>TBA -- 1866 East Hall</td>
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<tr>
<td>Wednesday, April 22, 2020</td>
<td>3:00pm-4:00pm</td>
<td><strong>Financial/Actuarial Mathematics</strong> -- Suman Chakraborty (UM)</td>
<td>Bootstrap Percolation: Exposition and Some Applications -- <a href="https://bluejeans.com/608683530">https://bluejeans.com/608683530</a> East Hall</td>
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<tr>
<td>Thursday, April 23, 2020</td>
<td>4:00pm-5:00pm</td>
<td><strong>Differential Equations</strong> -- Ricardo Grande (MIT)</td>
<td>TBA -- 4088 East Hall</td>
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Abstracts for the week of April 19th, 2020 - April 25th, 2020

Student Dynamics
Monday, April 20, 2020, 3:00pm-3:50pm
3866 East Hall
Jasmine Powell (UM)
TBA

Group, Lie and Number Theory
Monday, April 20, 2020, 4:10pm-5:00pm
4096 East Hall
Hang Xue (University of Arizona)
TBA

Student Geometry/Topology
Tuesday, April 21, 2020, 3:00pm-4:00pm
1866 East Hall
Bradley Zykoski ()
TBA
Bootstrap percolation is a simple process of infection/information spread on a network $G$. Initially a set $A$ of vertices in the network gets "infected", then at each time step a new vertex gets infected if they have at least $r$ previously infected neighbors, where $r$ is a positive integer. We will discuss some intriguing phenomena that happens in this process. For example, depending on the underlying network and initially infected vertices this process undergoes a phase transition. Informally that means in the end either "many" vertices will be infected or "very few" vertices will be infected. We will discuss some classical results in this topic along with some new results on the total number of infected vertices (ongoing work). This model has found applications in the study of systematic risk, we will discuss this link. If time permits we will discuss a related process called graph bootstrap percolation and some of our contribution here.

Connect at https://bluejeans.com/608683530