

# IU Calendar

| Event Information     |  | SOIC Master Calendar IUB |
|-----------------------|--|--------------------------|
| <b>Title:</b>         | Center for Bioinformatics Research Talk - Peter L. Ralph, University of Southern California  |                          |
| <b>Sharing:</b>       | Public   |                          |
| <b>Start Time:</b>    | Thursday, September 11, 2014 4:00 PM   |                          |
| <b>End Time:</b>      | Thursday, September 11, 2014 5:00 PM   |                          |
| <b>Location:</b>      | Indiana Memorial Union (Union Building)  |                          |
| <b>Contact:</b>       | Mike Lynch   |                          |
| <b>Url:</b>           | <a href="http://www.soic.indiana.edu/research/centers/bioinformatics.php">http://www.soic.indiana.edu/research/centers/bioinformatics.php</a>  |                          |
| <b>Free/Busy:</b>     | busy   |                          |
| <b>Description:</b>   | <p><b>Center for Bioinformatics Research Talk</b></p> <p><b>Speaker:</b> Peter Ralph, Computational Biology and Bioinformatics, The University of Southern California</p> <p><b>Where:</b> Oak Room, Indiana Memorial Union</p> <p><b>Topic:</b> Tools for understanding the geography of adaptation</p> <p><b>Abstract:</b> I will talk about several theoretical results of how species adapt in continuous geography, and one descriptive tool designed for use on data. I aim to answer the following questions: When does a species faced with a new selective pressure adapt as a unit, and when do different solutions to the same evolutionary problem arise in parallel in different parts of the range? What about the case of a patchy environment: i.e. when should local adaptations be shared versus heterogeneous? How could we distinguish the two? These questions have surprisingly elegant answers, thanks to stochastic tools going back to Fisher and Kolmogorov. I will also describe an inference method that infers relative strengths of simple geographic distance, environmental differences, or other (e.g. resistance) distances. The latter is implemented as an open-source R module (BEDASSLE, Bradburd, Ralph and Coop).</p> <p><b>Biography:</b> Peter Ralph did his PhD working on probability and statistics at UC Berkeley with Steve Evans, followed by a postdoc with Graham Coop at UC Davis. He is now faculty in the Computational Biology and Bioinformatics group at the University of Southern California.</p> <p><b>Poster</b></p> |                          |
| <b>Reminder:</b>      | The reminder for this event will be sent by email 30 minutes before it occurs.   |                          |
| <b>Cost:</b>          | Admission Free   |                          |
| <b>Contact Email:</b> | milynch@indiana.edu  |                          |