

COMPUTER SCIENCE
GRADUATE STUDENT SEMINAR

Making Sense of Genome-scale Data

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Abstract: High-throughput data production technologies are revolutionizing modern biology. Translating this experimental data into discoveries of relevance to human health relies on sophisticated computational tools that can handle large-scale data. However, sophisticated methods for the analysis of biological data are of little value if they are not accessible. Powerful analysis tools, data warehouses, and browsers exist, but for the average experimental biologists with limited computer expertise, making effective use of these resources is still out of reach. We have developed "Galaxy", which solves this problem by providing an integrated web-based workspace that bridges the gap between different tools and data sources. For computational tool developers, Galaxy eliminates the repetitive effort involved in creating high-quality user interfaces, while giving them the benefit of being able to provide their tools in an integrated environment. For experimental biologists, Galaxy allows running complex analyses on huge datasets with nothing more than a web browser, and without needing to worry about details like resource allocation, and format conversions. Galaxy makes high-end computational biology more accessible, efficient, and reproducible.

Friday, September 19, 2008, 3:00 pm
Mathematics and Science Center: W201

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