Bioinformatics

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The central theme of research is the quest for a consistent understanding of the (molecular) evolution of our genotype, resulting principles and phenotypes, as well as complex biological systems. We perform basic research, observe theory, develop novel algorithms and apply computational and statistical techniques to solve formal and practical problems arising from the management and analysis of large-scale biological data. More precisely, they currently investigate the following:

- Detection and analysis of non-protein-coding RNA molecules
- Sequence analysis
- Genome annotation
- RNA evolution
- Phylogenetic footprints
- Gene regulation
- Graph theory
- Complex systems and biological networks

Selected References

