A Science of Information for Biology

Can a new science of information lead to general principles about complex biological systems?

Consider that living organisms form as a result of information within inherited genetic material, and in turn all life forms adapt and respond behaviorally from information gained through environmental and social interactions:

- How is information managed in living systems?
- How does this information lead to higher level biological phenomena?
- How does information evolve in these systems?

Research at the nexus of information theory and the life sciences is being undertaken in the Center for Science of Information by scientists working in multidisciplinary teams including information theorists, mathematicians, physicists, chemists, and computer scientists working with biologists.

Learn more about our activities: http://www.soihub.org

Center for Science of Information
NSF Science & Technology Center

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information bits is a program of the Center for Science of Information promoting appreciation and understanding of the role of information in science, technology, and society. We welcome your inquiries. Visit http://www.soihub.org

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\[ H(X) = \sum p_i \log_2 \left( \frac{1}{p_i} \right) \]