

## **Theoretical principles for biology: organization and variation**

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### **ABSTRACT**

We argue that a theory of biological systems should rely on organization and variation as fundamental theoretical principles. Biological systems are organized natural systems that undergo functional variation. In this presentation we will provide a specific characterization of each principle while emphasizing their mutual relations. Organization provides the relevant kind of complexity for functional variation to occur; and, in turn, variation enables the maintenance of organization over time, notably at the evolutionary scale.