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Explaining neuro-evolution of fighting creatures through virtual fMRI

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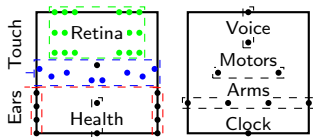
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Evolve

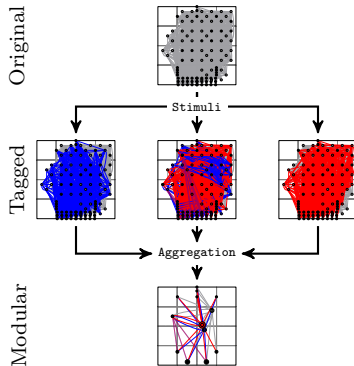


Virtual robots (Splinoïds)

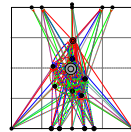


Input/Output planes

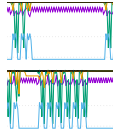
Abstract



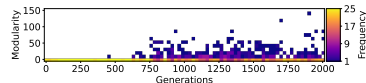
Analyze



Cognitive maps



High-level states



Emergence of modularity

2D Morphology and 3D ANN co-evolved in physical competitions

Monitored neural response to stimuli to derive a modular abstraction

Studied dynamics at the cognitive, behavioral and phylogenetic levels