

Information Geometry and Evolutionary Game Theory

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The Shahshahani geometry of evolutionary game theory is realized as the information geometry of the simplex, deriving from the Fisher information metric of the manifold of categorical probability distributions. Some essential concepts in evolutionary game theory are realized information-theoretically. Results are extended to the Lotka-Volterra equation and to multiple population systems.

Comments: Added references

Subjects: **Information Theory (cs.IT)**; Computer Science and Game Theory (cs.GT); Dynamical Systems (math.DS); Adaptation and Self-Organizing Systems (nlin.AO)

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