

## 动力系统线上学术报告

## The structure of optimal orbit: simple vs sophisticated

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链接入会: https://meeting.tencent.com/s/HYW7wqWPwLyM

报告摘要: Given a topological dynamical system T: X→X, and an continuous observable  $\varphi$ : X →  $\mathbb{R}$ , we say an orbit  $\mathcal{O}_{x_0} = \{x_0, T(x_0), ...\}$  is an f-optimal orbit, if the Birkhoff average  $\langle \varphi \rangle (x_0) \coloneqq \lim_{n \to \infty} \frac{1}{n} \varphi(T^i(x_0))$  exists, and  $\langle \varphi \rangle (x_0) \ge \limsup_{n \to \infty} \frac{1}{n} (T^i(x_0))$ , for all  $x \in X$ , and define by  $\mathcal{S}_{op} \subset X$ , the set of initial states, which give rise to the optimal orbit. We will investigate the geometric structure of  $\mathcal{S}_{op}$ , and see how  $\mathcal{S}_{op}$  varies, corresponding to the variances on the hyperbolicity of T, and regularity of  $\varphi$ .

欢迎各位老师和同学参加!

西北大学数学学院 2020年11月22日

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