

立命館大学幾何学セミナー

来る **7月8日（金）** に立命館大学幾何学セミナーが行われます。みなさまのご参加をお待ちいたしております。

日時：**2022年7月8日（金）18:00～19:00**

開催方法：Zoom ミーティングにて配信いたします。下記の URL より7月7日（木）までにご登録ください。当日お昼ごろまでに Zoom ミーティングの情報をお知らせいたします。

https://ritsumeai-ac-jp.zoom.us/meeting/register/tJA1cuitqjsjEt24PyS7_DPy38IXbVBOD2yB

講演者：

森本 真弘 氏
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タイトル：

Geometry of orbits of path group actions induced by Hermann actions

アブストラクト：

As a generalization of submanifolds in Euclidean spaces, we can consider submanifolds in Hilbert spaces. In 1988, R. S. Palais and C.-L. Terng introduced a suitable class of submanifolds in Hilbert spaces, namely proper Fredholm (PF) submanifolds. By definition, the shape operators of PF submanifolds are compact self-adjoint operators. Moreover, the infinite dimensional differential topology and Morse theory can be applied to PF submanifolds. They gave examples of PF submanifolds which are orbits of the gauge group actions. After that, the relation between those actions and affine Kac-Moody algebras was studied by R. S. Palais, C.-L. Terng, E. Heintze and G. Thorbergsson. Later, E. Heintze introduced the concept of affine Kac-Moody symmetric spaces, which are infinite dimensional analogues of finite dimensional Riemannian symmetric spaces. In this talk, I will explain foundations of PF submanifolds and their relation to affine Kac-Moody symmetric spaces, and introduce my recent results concerning the submanifold geometry of orbits of gauge group actions.

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