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Plenary Talk: Indefinite extrinsic symmetric spaces**

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We will study symmetric submanifolds of pseudo-Euclidean spaces. A non-degenerate submanifold of a pseudo-Euclidean space is called symmetric submanifold or extrinsic symmetric space if it is invariant under the reflection at each of its affine normal spaces. In particular, each extrinsic symmetric space is an ordinary (abstract) symmetric space. Another characterisation can be obtained in terms of the second fundamental form. Extrinsic symmetric spaces are exactly those connected complete submanifolds whose second fundamental form is parallel. While a nice construction found by Ferus provides a classification of all extrinsic symmetric spaces in Euclidean ambient spaces the pseudo-Riemannian situation is much more involved. We will give a description of extrinsic symmetric spaces in pseudo-Euclidean spaces by corresponding infinitesimal objects and discuss the classification problem for these objects.