SYMMETRIC CR MANIFOLDS

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A Cauchy-Riemann (CR) space is a smooth manifold having an even dimensional bundle H together with a bundle isomorphism $J : H \to H$ such that $J^2 = -id$. A connected hermitian CR space M is called symmetric if at every point $p \in M$, there exists an isometric CR diffeomorphism $\sigma\colon M \to M$ such that $d\sigma_p$ restricted on H_p and totally real tangent space coincides with negative identity. An important example of symmetric CR space is the Shilov boundary of a bounded symmetric space.

In this talk, we will discuss some basic properties of symmetric CR space and then focus on rigidity of CR maps between Shilov boundaries of the bounded symmetric domains of type I. As an application we will show the rigidity of proper holomorphic maps between bounded symmetric domains of type I.

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