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The symplectic duality of Hermitian symmetric spaces

In this talk I describe the *symplectic duality map* $\Psi : M^n \rightarrow \mathbb{C}^n$ of an Hermitian Symmetric Space M . This map was introduced in [DL]. The main property of Ψ is to be a bi-symplectomorphism, namely, $\Psi^*\omega_0 = \omega_{hyp}$ and $\Psi^*\omega_{FS} = \omega_0$, where ω_0 is the flat symplectic form of M (regarded as a bounded domain of \mathbb{C}^n), ω_{hyp} is the hyperbolic form on M and ω_{FS} is the Fubini-Study form on the affine chart $\mathbb{C}^n \subset \mathbb{C}P^n$. Then I will discuss the unicity problem of such a map, i.e. to what extent this map is unique. This last part is based on the work [DLR].

REFERENCES

- [DL] Di Scala, A.J. and Loi, A., *Symplectic Duality of Symmetric Spaces*, arXiv math.DG/0603141.
- [DLR] Di Scala, A.J. ; Loi, A. and Roos, G. *The unicity of the symplectic duality*, arXiv math.DG/0707.2125