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Deformation inequivalent complex conjugated complex structures and applications

of

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**Abstract:** We start from a short summary of our principal result from [KK]: an example of a complex algebraic surface which is not deformation equivalent to its complex conjugate and which, moreover, has no homeomorphisms reversing the canonical class. Then, we generalize this result to higher dimensions and construct several series of higher dimensional compact complex manifolds having no homeomorphisms reversing the canonical class. After that, we resume and broaden the applications given in [KK] and [KK2], in particular, as a new application, we propose examples of (deformation) non equivalent symplectic structures with opposite canonical classes.

**Key Words:** Real structure, deformation, moduli

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