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Stationary disks and Green functions in almost complex domains

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Abstract. Using generalized Riemann maps, normal forms for almost complex domains (D, J) with singular foliations by stationary disks are defined. Such normal forms are used to construct counterexamples and to determine intrinsic conditions under which the stationary disks are extremal disks for the Kobayashi metric or determine solutions to almost complex Monge-Ampère equation.

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