# Solution of the qc Yamabe Equation on a 3-Sasakian Manifold and Extremals of the Sobolev-Folland-Stein Inequality on the Quaternionic Heisenberg Groups

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A complete solution to the quaternionic contact Yamabe equation on the sphere of dimension $4n + 3$ as well as on the quaternionic Heisenberg group is given. A uniqueness theorem for the qc Yamabe problem on a compact locally 3-Sasakian manifold is shown and the extremals of the Sobolev-Folland-Stein inequality on the quaternionic Heisenberg group are confirmed.