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Justin Sawon* (sawon@email.unc.edu), Department of Mathematics, University of North Carolina, Chapel Hill, NC 27599-3250. *Generalized twistor spaces of quaternionic manifolds*. Preliminary report.

Quaternionic manifolds are equipped with families of complex structures (in some cases, local and/or almost complex structures). The twistor construction is a convenient way of packaging these different complex structures into a single complex manifold, known as the twistor space. Quaternionic manifolds also admit large families of generalized complex structures, in the sense of Hitchin, and one would like to package these all in a single generalized complex manifold. Together with my student Rebecca Glover, we constructed such generalized twistor spaces for hyperkahler manifolds. In this talk, we describe this construction and its extension to another class of quaternionic manifolds: quaternion-Kähler manifolds. (Received July 22, 2018)