

1099-53-179

**G Grantcharov\*** ([grantchg@fiu.edu](mailto:grantchg@fiu.edu)), **M Lejmi** and **M Verbitsky**. *Hypercomplex manifolds of dimension eight*. Preliminary report.

We present a quaternionic analog of the well-known fact that a compact complex surface is Kaehler if and only if its first Betti number is even. More precisely we prove that 8-dimensional compact  $SL(n, H)$  manifold admits HKT (hyperkaehler with torsion) metric if and only if its Hodge number  $h^{0,1}$  is even. (Received February 07, 2014)