Alexander A Katz* (katza@stjohns.edu), Dep. of Math & CS, SJC of LAS, St. John’s University, 8000 Utopia Parkway, SJH-334-G, Queens, NY 11439. On locally order unit spaces and characterizations of locally JB-algebras.

We introduce locally order unit spaces as locally convex spaces which are topologically isomorphic to projective limits of projective families of order unit spaces. It is shown that a unital Jordan lmc-algebra which is as well a locally order unit space such that the algebra identity coincides with the order identity, is a locally JB-algebra in the locally convex topology generated by the order seminorms. As a consequence we obtain that a unital Jordan lmc-algebra A in which each closed abelian Jordan lmc-subalgebra C(x) generated by an element x and the identity of A is a locally JB-algebra in the topology of A, is itself a locally JB-algebra. (Received September 21, 2015)