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*Inverse Limits of Upper Semi-continuous Set Valued Functions.*

In this article we define the inverse limit of an inverse sequence  $(X_1, f_1), (X_2, f_2), (X_3, f_3), \dots$  where each  $X_i$  is a compact Hausdorff space and each  $f_i$  is an upper semi-continuous function from  $X_{i+1}$  into  $2^{X_i}$ . Conditions are given under which the inverse limit is a Hausdorff continuum and examples are given to illustrate the nature of these inverse limits. (Received February 25, 2004)