

# Locally Compact Pro- $C^*$ -algebras

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We consider the category of projective limits of  $C^*$ -algebras. One typical example is that of  $C(X)$  of all continuous functions on a completely Hausdorff, compactly generated topological space  $X$ . The other important example is the (unbounded) multiplier algebra of the Pedersen's ideal of a  $C^*$ -algebra. We call these "locally compact pro- $C^*$ -algebras and characterize them among all pro- $C^*$ -algebras.