1049-46-134 **Gabor Lukacs*** (lukacs@cc.umanitoba.ca), Winnipeg, Manitoba R3T 2N2, Canada, and **Rachid El Harti**, Settat, Morocco. *Gelfand duality for pro-C^*-algebras and non-commutative k-spaces.*

A *pro-C^*-algebra* is a limit of C^*-algebras in the category of topological $*$-algebras (and continuous $*$-homomorphisms). Such algebras were studied under various names (LMC^*-algebras, locally C^*-algebras, and σ-C^*-algebra in the metrizable case) by Schmüdgen [8], Inoue [6], Arveson [1], Phillips [7], and El Harti [5].

In the first half of the talk, we consider commutative unital pro-C^*-algebras. It turns out that the Gelfand duality can be extended to a close relative of the so-called k-spaces (cf. [3.3, 2], [9], and [3]), and the topological $*$-algebras thus obtained are commutative unital pro-C^*-algebras.

In the second half of the talk, we focus on the functor $(-)_b$ that assigns to a pro-C^*-algebra the C^*-algebra of its bounded elements. For commutative pro-C^*-algebras, this functor is the dual of the the Stone-Čech-compactification. We show that $(-)_b$ preserves exact sequences, and it is a coreflector.

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