Contribution Title:	PRO-C*-DYNAMICAL SYSTEMS WITH CROSSED PRODUCTS C*-ALGEBRAS
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A pro-C^*-algebra is a complete Hausdorff complex topological $*$-algebra A whose topology is determined by its continuous C^*-seminorms in the sense that a net $\{a_i\}_{i\in I}$ converges to 0 in A if and only if the net $\{p(a_i)\}_{i\in I}$ converges to 0 for all continuous C^*-seminorms p on A. For a pro-C^*-algebra A, the set $S(A)$ of all continuous C^*-seminorms on A is directed. A pro-C^*-dynamical system is a triple (G, α, A), where G is a locally compact group, A is a pro-C^*-algebra and α is a continuous action of G on A such that there is a cofinal subset of $S(A)$ consisting of the α-invariant continuous C^*-seminorms (that is, $p(\alpha_g(a)) = p(a)$ for any $a \in A$ and for all $g \in G$). The set $C_c(G, A)$ of all continuous functions from G to A with compact support is a $*$-algebra with convolution of two functions as product and the involution defined by $f^{\#}(t) = \Delta(t)^{-1}\alpha_t(f(t^{-1})^*)$, where Δ is the modular function on G. For any $p \in S(A)$, the map N_p: $C_c(G, A) \to [0, \infty)$ defined by

$$N_p(f) = \int_G p(f(s))ds$$

where ds denotes a left Haar measure on G, is a submultiplicative *-seminorm on $C_c(G, A)$. The covariance algebra $L^1(G, \alpha, A)$ associated to (G, α, A) is an m^*-convex algebra with bounded approximate unit and it is obtained by the Hausdorff completion of $C_c(G, A)$ with respect to the topology defined by the family of submultiplicative *-seminorms $\{N_p\}_{p\in S(A)}$. The full crossed product associated to (G, α, A) is the enveloping pro-C^*-algebra of the covariance algebra. In [S. J. Bhatt, D. J. Karia, Topological algebras with C^*-enveloping algebras, Proc. Indian Acad. Sci (Math. Soc.) 102 (1993), 201-215] are proved sufficient and necessary conditions under which an m^*-convex algebra with bounded approximate admits a C^*-algebra as enveloping pro-C^*-algebra. In this talk we discuss about pro-C^*-dynamical systems with crossed product C^*-algebras.