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C*-envelopes of tensor algebras of product systems

The C*-envelope of an operator algebra C is the smallest C*-algebra generated by a completely isometric copy of C . Muhly and Solel showed that the C*-envelope of the tensor algebra $\mathcal{T}(\mathcal{E})^+$ of a correspondence \mathcal{E} is canonically isomorphic to the Cuntz--Pimsner algebra $\mathcal{O}_*(\mathcal{E})$ under certain assumptions on \mathcal{E} , which were later removed by Katsoulis and Kribs. In this talk I will report on a generalisation of this result for an arbitrary product system \mathcal{E} over a submonoid of a group G . As a consequence, it follows that the C*-envelope of $\mathcal{T}_\lambda(\mathcal{E})^+$ automatically carries a gauge coaction of G , answering a question left open in recent work of Dor-On, Kakariadis, Katsoulis, Laca and Li.