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Título: The size of the blocks of a profinite group.

Resumo: Given a profinite group G and a complete valuation ring A whose quotient field has characteristic p (A could be a field), it is very lucrative to write the completed group algebra $A[[G]]$ as a direct product of indecomposable algebras – the "blocks of G " – and study the representation theory of G one factor at a time. If a block is finite dimensional, then one reduces to the representation theory of a finite dimensional algebra. One might imagine that the blocks of a profinite group are very different, with some being small and others huge. I'll show that this is not the case: either $A[[G]]$ is a direct product of finite dimensional algebras, or every block is infinite dimensional. This is joint work with Peter Symonds.