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Coverings of Profinite Graphs.

We define a covering of a profinite graph to be a projective limit of a system of covering maps of finite graphs (Our finite graphs are graphs in the sense of Serre). With this notion of covering, we develop a covering theory for profinite graphs which is in many ways analogous to the classical theory of coverings of abstract graphs and coverings of topological spaces. For example, it makes sense to talk about the lifting criterion of a map of profinite graphs. Also we show that universal cover of a connected profinite graph always exists and is unique. We define the profinite fundamental group of a profinite graph and show that a connected cover of a connected profinite graph is the universal cover if and only if its profinite fundamental group is trivial. (Received August 06, 2015)