FACTORIZATION ALGEBRAS IN QUITE A LOT OF GENERALITY

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The objects of arithmetic geometry are not manifolds. Some concepts from differential geometry admit analogues in arithmetic, but they are not straightforward. How then can we hope to make precise sense of quantum field theories on these objects? I will propose the beginnings of a mathematical framework via a general theory of factorization algebras. A new feature is a subtle piece of additional structure on our objects – what I call an _isolability structure_ – that is ordinarily left implicit.