**Expansions and covers: Abstract**

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In mathematics, objects do not necessarily behave regularly and may sometimes have undesirable properties. A standard attempt to avoid such singularities is to cover defective objects by smoother ones, an idea that proved to be especially successful in topology and algebraic geometry. Although it suits a much more modest goal, the notion of expansion in semigroup theory shares the same idea: removing singularities. In this lecture, I will present a few examples of such expansions and covers.