Here's a brief abstract of my work:

"We classify the set of natural numbers $n$ for which certain subclasses of dynamical systems $(X,f)$ on a compact metric space $X$ have a periodic point of least period $n$. Interest in this question dates back to Sharkovskii's theorem for continuous maps on intervals of the real line, but it also ties to checkable conditions for Krieger's embedding theorem for symbolic dynamical systems. We begin by showing that while the Artin-Mazur zeta function of the system in principle contains this information entirely, extracting it directly is far from trivial. If our system has a rational zeta function, we can classify for which $n$ we have a periodic point of (not necessarily least) period $n$, by using the highly intricate Skolem-Mahler-Lech theorem. Moreover, we build on deep work on finitely presented (FP) systems and their relationship to symbolic dynamics to classify the set of least periods for arbitrary FP systems, and shifts of finite type. We also provide several constructions to realize any such least period sets."

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