Title: Which commutative idempotent binars are tractable?

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Abstract: A binar is a set equipped with a binary operation. Letting $A$ denote a finite commutative idempotent binar (CIB), and $R$ a set of subuniverses of powers of $A$, we ask whether the constraint satisfaction problem CSP($R$) is solvable in polynomial time. It turns out that if $S$ is the two-element semilattice, then the following are equivalent: (i) $S$ is not a divisor of $A$; (ii) $V(A)$ omits tame congruence type 5; (iii) $A$ has an edge term. Thus, such CIBs are tractable. We will discuss some results and questions like these, and describe a few small CIBs whose tractability seems open.

This is joint work with Cliff Bergman and Jiali Li.