

## Absorbing subuniverses

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For an idempotent algebra  $\mathbf{A}$  and a subuniverse  $C \subseteq A$  we say that  $C$  *absorbs* the algebra if there exists a term  $t(x_1, \dots, x_n)$  such that, for any choice of  $c_1, \dots, c_{n-1} \in C$  and  $a \in A$ ,

$$t(a, c_1, \dots, c_{n-1}), t(c_1, a, c_2, \dots, c_{n-1}), \dots, t(c_1, \dots, c_{n-1}, a) \in C.$$

Absorbing subuniverses of algebras (and connected notions) play a crucial role in the proofs of CSP dichotomy for smooth digraphs, the characterization of CSP's of bounded width and existence of cyclic terms.

During the lecture I will present known results concerning absorbing subuniverses and give examples of their applications to the problems mentioned above.

This is a joint work with L. BARTO (Charles University, Prague).