IOANNIS SOULDATOS, The Hanf Number for the Joint Embedding Property. Department of Mathematics, Aristotle University of Thessaloniki, Thessaloniki 54124, Greece.

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Define the Hanf number for the joint embedding property (JEP), or the amalgamation property (AP), for Abstract Elementary Classes (AEC) to be the least cardinal μ so that if \boldsymbol{K} is an AEC with $LS(\boldsymbol{K}) < \mu$, and \boldsymbol{K} satisfies JEP (AP) cofinally below μ , then \boldsymbol{K} satisfies JEP (AP) in all cardinals $\geq \mu$.

In [1], Baldwin and Boney proved that the first strongly compact cardinal is an upper bound for the Hanf number for JEP and AP. They raised the question if the strongly compact upper bound is optimal.

In this talk we will survey some recent developments in the area.

References

[1] John Baldwin Will Boney. Hanf numbers and presentation theorems in aecs. In Jose Iovino, editor, *Beyond First Order Model Theory*, pages 81–106. Chapman Hall, 2017.

[2] Will Boney and Ioannis Souldatos. A lower bound for the Hanf number for joint embedding. *Fund. Math.*, 258(2):115–135, 2022.