



# Message passing algorithms

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Over the past two decades physics intuition has inspired novel message passing algorithms such as Survey Propagation or Approximate Message Passing.

Applications include classical problems such as satisfiability, but also inference tasks such as compressed sensing or matrix estimation. In this talk I am going to give an introduction into this new technique, its applications and the challenges associated with analysing these new algorithms. As a particular example I am going to speak about the group testing problem.