

1154-52-2681 **Henry Cohn*** (cohn@microsoft.com). *Universal optimality and its failure.*

When should we expect the solution of an optimization problem to solve other related problems at the same time? Generically, there is no reason for this to happen, but linear programming bounds have an odd tendency to single out unusually nice solutions, in particular universal optima. In this talk I'll survey what's known about this phenomenon for particle configurations in several different ambient spaces. (Received September 17, 2019)