

SOLUTIONS OF UNDERDETERMINED SYSTEMS OF LINEAR EQUATIONS

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ABSTRACT

We (i) outline a general framework for generating solutions to underdetermined systems of equations, (ii) review properties of several specific methods, including minimal norm and maximum entropy, (iii) introduce specific alternate methods for generating non-negative solutions, (iv) compare, via systematic numerical examples, the solutions generated by these methods with those generated by the maximum entropy and minimum norm methods, and (v) consider the nature of the positivity constraint by studying a transparent example.

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