Reconstructing configurations and graphs from unlabeled distance measurements

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Place a configuration of n points (vertices) generically in R^d. Measure the Euclidean lengths of *m* point-pairs (edges). When is the underlying graph determined by these *m* numbers (up to isomorphism)? When is the point configuration determined by these *m* numbers (up to congruence). This question is motivated by a number of inverse problem applications. In this talk, I will review what is known about this question.