## 1126-08-186 Matt Valeriote\* (matt@math.mcmaster.ca), Department of Mathematics & Statistics, McMaster University, Hamilton, Ontario L8S 4K1, Canada. Testing Assignments to Constraint Satisfaction Problems.

For a finite relational structure A, let CSP(A) denote the CSP instances whose constraint relations are taken from A. We consider CSP(A) from the perspective of property testing: given an instance of CSP(A) and query access to an assignment, one wants to decide whether the assignment satisfies the instance, or is far from doing so. We establish a dichotomy theorem completely characterizing the structures A such that CSP(A) is constant-query testable: (i) If A has a majority polymorphism and a Maltsev polymorphism, then CSP(A) is constant-query testable with one-sided error. (ii) Else, testing CSP(A) requires a super-constant number of queries. This is joint work with Hubie Chen and Yuichi Yoshida. (Received January 12, 2017)