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Linyuan Lu and **Kevin G Milans*** (milans@math.sc.edu). *Turán and Ramsey Problems for Complete Set Systems*. Preliminary report.

In the n -dimensional Boolean lattice $2^{[n]}$, a d -dimensional *complete set system* is a collection of 2^d sets that is an affine subspace (when viewed as vectors) and induces a copy of $2^{[d]}$ (when viewed as a subposet of $2^{[n]}$). We obtain bounds on the maximum size of a family of sets in $2^{[n]}$ that does not contain a d -dimensional complete set system. We also consider the corresponding Ramsey problem and obtain a complete set system analogue of the Canonical Ramsey Theorem of Erdős and Rado. This is joint work with Linyuan Lu. (Received January 31, 2012)