1092-05-36 **Pavle Blagojević** and **Boris Bukh***, Department of Mathematical Sciences, Wean Hall 6113, Carnegie Mellon University, Pittsburgh, PA 15213, and **Roman Karasev**. *Turán numbers for $K_{s,t}$-free graphs: topological obstructions and algebraic constructions.*

How many edges can an $n$-vertex graph have without containing $G$ as a subgraph. If $G$ is not bipartite, then asymptotics is known, but for only a few bipartite graphs the humankind knows the answer. In all the instances when the answer is known the construction is algebraic. It turns out that no real algebraic construction of extremal $K_{4,4}$-free graphs is possible. In this talk, I will explain what that means, and sketch a new construction of extremal $K_{s,t}$-free graphs for $t$ much larger than $s$. (Received July 12, 2013)