

1108-05-516

**Bernard Lidicky\*** ([lidicky@iastate.edu](mailto:lidicky@iastate.edu)), Iowa State University, Ames, IA , and **Florian Pfender** ([florian.pfender@ucdenver.edu](mailto:florian.pfender@ucdenver.edu)), University of Colorado, Denver, Denver, CO. *Using flag algebras on small Ramsey numbers.*

We show how to compute upper bounds on small Ramsey numbers using flag algebras and we obtain improvements for several cases. Although flag algebras were developed for investigating large graphs, it is possible to use them for small graphs by considering blow-ups. The nice feature of the flag algebra approach is that it allows to attack upper bounds for different Ramsey numbers with only minor modifications. (Received January 20, 2015)