

# A Filter-Successive Linearization Method for Nonlinear Semidefinite Programming

C. Li<sup>1</sup> and W. Sun<sup>2</sup>

**Abstract:** Combining with successive linearization method and filter technique, we present a filter-successive linearization method with a trust region-type globalization for solution of nonlinear semidefinite programming. The new method is shown to be globally convergent under weaker assumptions, and some numerical results are included in order to illustrate its behavior.

---

<sup>1,2</sup> School of Mathematics and Computer Science  
Nanjing Normal University  
Nanjing 210097, China  
*chengjin98298@sina.com, wysun@njnu.edu.cn*