**问题：**

1. 单目标无约束连续优化问题

下载地址：<http://www.ntu.edu.sg/home/epnsugan/index_files/CEC2018/CEC2018.htm>

N. H. Awad, M. Z. Ali, J. J. Liang, B. Y. Qu and P. N. Suganthan, "[Problem Definitions and Evaluation Criteria for the CEC 2017 Special Session and Competition on Single Objective Bound Constrained Real-Parameter Numerical Optimization](http://web.mysites.ntu.edu.sg/epnsugan/PublicSite/Shared%20Documents/Forms/AllItems.aspx?RootFolder=%2Fepnsugan%2FPublicSite%2FShared%20Documents%2FCEC%2D2017&View=%7bDAF31868%2d97D8%2d4779%2dAE49%2d9CEC4DC3F310%7d),"  Technical Report, Nanyang Technological University, Singapore, November 2016. (**bound constrained case**)

2．实际问题：

<http://www.ntu.edu.sg/home/epnsugan/>

[**CEC Competitions - Benchmarks**](http://www.ntu.edu.sg/home/epnsugan/index_files/cec-benchmarking.htm)**.**

[**CEC11  Competition**](http://www3.ntu.edu.sg/home/epnsugan/index_files/CEC11-RWP/CEC11-RWP.htm)**on Testing Evolutionary Algorithms on Real-world Numerical Optimization Problems**

**算法：**选择每种不同特性的函数，用粒子群算法，差分演化算法分别进行求解，并对比各自算法行为，如收敛特性和最终效果。要求有结果分析报告，并用可视化界面对比算法行为。