

1046-Z1-2054 **Rommel G Regis*** (rregis@sju.edu), Saint Joseph's University, Math & CS Dept., 5600 City Avenue, Philadelphia, PA 19131. *Recent Developments in Derivative-Free Optimization*. Preliminary report.

Classical optimization techniques utilize derivatives. However, many optimization practitioners have encountered practical problems in applying standard derivative-based methods. Moreover, recent studies have shown that some derivative-free optimization methods that utilize function approximation models such as radial basis functions perform better than standard derivative-based methods on practical problems where function evaluations are expensive. This talk will provide a brief survey of recent developments in derivative-free optimization. (Received September 17, 2008)