

## **Intervalwise block partitioning for 3-point in solving linear systems of first order ordinary differential equations**

### **ABSTRACT**

Intervalwise partitioning is a strategy to solve stiff ordinary differential equations (ODEs). This strategy using on 3-point block method will initially starts solving ODE using Adams method, and switch the system to Backward Differentiation Formula (BDF) when there is an indication of stiffness. Indication of stiffness will be based on  $h_{acc} > h_{iter}$  and the trace of the Jacobian. The comparison with existing method reveals that this partitioning strategy can be an alternative method to solve stiff ODEs.

**Keyword:** Intervalwise partitioning; 3-point block method; Stiff ordinary differential equations