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Ramanjit K Sahi* (sahir@apsu.edu), **Samuel Jator** and **Noureen Khan**. *Direct numerical approach for solving Falkner-Scan Equations.*

Many applications in engineering are modeled by third order boundary value problems such as Falkner-Scan, Blasius and Sandwich beam problems. Generally, most of the problems are solved by first reducing them to an equivalent system of first order differential equations. In this presentation, we apply a fourth order method to solve Falkner-Scan equations directly, thereby saving computer time. We perform numerical experiments to show efficiency and accuracy advantages of the new method over existing ones in literature. (Received September 07, 2012)