1015-76-261 **Roger M Temam*** (temam@indiana.edu), Department of Mathematics, 831 E. Third Street, Rawles Hall, Bloomington, IN 47405, and **Qingshan Chen** (qinchen@indiana.edu), Department of Mathematics, 831 E Third Street, Rawles Hall, Bloomington, IN 47405. *A 2.5D model for the equations of the atmosphere and the ocean Qingshan Chen and Roger Temam (with A. Rousseau and J. Tribbia).* Preliminary report.

In earlier works [RTT], the authors considered the two-dimensional Primitive Equations, in which all functions are independant of the variable y. In this lecture a model of dimension 2.5 is proposed to approximate the primitive equations of the atmosphere and the ocean, with a mild (three modes) dependance on the variable y. (Received February 07, 2006)