

BURSTING X-RAY SOURCES: A THEORETICAL FRAMEWORK FOR ACCRETION MODELS\*

F. K. Lamb<sup>†</sup>, A. C. Fabian, J. E. Pringle  
Institute of Astronomy, Cambridge, U.K.

and

D. Q. Lamb  
Physics Department, University of Illinois at Urbana-  
Champaign

We consider spherically symmetric accretion flow onto a strongly magnetized neutron star. We show that, under certain conditions, the flow is intermittent and that the resultant accretion luminosity (X-rays) from the stellar surface is akin to that observed in the bursting X-ray sources. We investigate the properties of such burst flows under a variety of conditions, in the hopes of providing a basic theoretical framework on which realistic models of the observed bursting sources can be built. This work was supported in part by NSF Grant PHY75-08790.

\*A more complete account of this work will appear in a paper to be published in the *Astrophysical Journal*.

†Permanent address: Physics Department, University of Illinois at Urbana-Champaign.