

UPPER ATMOSPHERES/AERONOMY AROUND GIANT PLANETS

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The term “aeronomy” was introduced by Sydney Chapman and he eventually defined it as “the science of the upper regions of the atmosphere, where dissociation and ionization are important”. The talk will use this definition as a guideline in selecting from the very wide range of potential topics. The Galileo and Cassini missions have provided significant information on the upper atmospheres of Jupiter and Saturn respectively, as well as their major satellites. In this talk the current understanding of these upper atmospheres and ionospheres will be reviewed. This will include summary of the relevant measurements and model developments and some of the outstanding problems. A brief review will also be included on the auroral observations at these planets.