



## **Langmuir waves : a tool to diagnose space plasma**

C. Briand

Observatoire de Paris, LESIA, Meudon, France (carine.briand@obspm.fr)

Langmuir waves are commonly observed in space plasma: during type III radiobursts, inside magnetic holes or density cavities in the solar wind, or in the Earth environment.

They provide a unique tools to study particle beams propagating in space.

After detailing the theoretical basis of plasma wave emissions, some examples of observations in different medium will be reviewed. In each case, a specific emphasis will be given on how these observations can give new knowledge on the physical conditions in the solar wind and magnetospheric environments.