

集中講義（1単位：1credit）

M3906：先端エネルギー理工学特別講義第六

タイトル: High Temperature Plasma Diagnostics

講師：Professor Byron J. Peterson  
National Institute for Fusion Science

対象：大学院学生(修士、博士)  
For master students and Ph.D. students

場所：総合理工学府H棟（先端エネルギー理工学専攻棟）2階講義室  
Lecture Room on 2F in H building

### Schedule

#1	6/6 (Tue.)	10:30-12:00
#2	6/6 (Tue.)	13:00-14:30* (H310 room)
#3	6/7 (Wed.)	10:30-12:00
#4	6/7 (Wed.)	13:00-14:30
#5	6/7 (Wed.)	14:50-16:20
#6	6/8 (Thur.)	10:30-12:00
#7	6/8 (Thur.)	13:00-14:30

### Abstract

Plasma diagnostics play an essential role in the development of fusion energy. This lecture series will start with a basic introduction to fusion and then explain various diagnostics from basic principles and how they are used to diagnose a hot plasma. The diagnostics covered will include magnetic probes, electric probes, refractive index measurements, Thomson scattering, electron cyclotron emission, heavy ion beam probe, charge exchange spectroscopy, x-ray imaging crystal spectrometer and bolometer. Finally a brief introduction to tomographic techniques and applications will be given.