

**S15a**                    **QSOの偏光スペクトルモデル**

山本 哲生 (東大理)

The compact size and great distance of quasars have hampered our understanding of the apparently complicated structure of these objects. Spectropolarimetric observations of Broad Absorption Line (BAL) QSOs in recent years provide us with important informations about kinematics and geometry of this central region.

The high quality of the polarimetric spectra motivated to a more sophisticated model including polarization. The broad band characteristic of the polarization suggest electron scattering. The scattering medium is placed in a spherical configuration between the central source and the broad line region (BLR). The BLR has a disk structure which obstructs part of the spherical scattering medium from the observer. Electron scattered rays that pass above the disk are seen as linear polarized light. The direct rays of unpolarized light, which pass through clouds with high velocity fields, are calculated in the Monte Carlo formalism. Since part of the polarized flux is absorbed at approximately the same velocity fields as the absorption troughs, it is apparent that some of the electron scattered light is absorbed by the same clouds that are responsible for the absorption of the direct unpolarized rays. The complicated structure of the polarization, which is polarized flux divided by total flux, is mostly explained by dilution with the direct rays, which are heavily reduced in the troughs. Further improvement of the model will give answers to which cloud components absorb/emit with that velocity fields.