



A Highly Doppler Blueshifted Fe-K Emission Line in the High-Redshift QSO PKS 2149-306

NASA Technical Reports Server (NTRS), et al., Tahir Yaqoob



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## A Highly Doppler Blueshifted Fe-K Emission Line in the High-Redshift Qso Pks 2149-306 (Paperback)

By Tahir Yaqoob

Bibliogov, United States, 2013. Paperback. Book Condition: New. 246 x 189 mm. Language: English . Brand New Book \*\*\*\*\* Print on Demand \*\*\*\*\*. We report the results from an ASCA observation of the high-luminosity, radioloud quasar PKS 2149-306 (redshift 2.345), covering the approximately 1.7 - 30 keV band in the quasar-frame. We find the source to have a luminosity of approximately  $6 \times 10^{47}$  ergs/s in the 2 - 10 keV band (quasar frame). We detect an emission line centered at approximately 17 keV in the quasar frame. Line emission at this energy has not been observed in any other active galaxy or quasar to date. We present evidence rejecting the possibility that this line is the result of instrumental artifacts, or a serendipitous source. The most likely explanation is blueshifted Fe-K emission (the equivalent width, is EW approximately 300 +/- 200 eV, quasar frame). Bulk velocities of the order of 0.75c are implied by the data. We show that Fe-K line photons originating in an accretion disk and Compton-scattering off a leptonic jet aligned along the disk axis can account for the emission line. Curiously, if the emission-line feature recently discovered in another quasar (PKS 0637-752, z = 0.654)...



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