

Abstract Submitted  
for the APR13 Meeting of  
The American Physical Society

**Gravitational Deflection of Light and Radio Waves Exhibit Impact Parameter Dependency from Solar Plasma Limb to Plasma-Free Space above**<sup>1</sup> EDWARD DOWDYE<sup>2</sup>, None — Findings consistently show that the observed gravitational light bending is severely impact parameter dependent for both microwaves and the rays of starlight at the plasma limb of the sun. Since the thin plasma atmosphere of the sun has a thickness of a fraction of the solar radius, the gravitational light bending effect as predicted by the light bending rule of General Relativity should be easily detectable above plasma limb in the plasma-free space for at least several solar radii with current technical means. Application of Mathematical Physics fundamentals clearly show that both microwaves and rays of starlight take a minimum-energy or a least-time path in the plasma limb exposed to the gravitational gradient field of the sun. This result is found to be independent of the frequency of the deflected wave. The results is experimentally confirmed by a host of researchers who used a very-long-baseline-interferometer (VLBI) measurement on extra galactic pulsar radio sources to observe the gravitational deflection of microwaves obtaining exactly the results of 1.75 arcsec. The light bending rule of General Relativity suggests that gravitational light bending effects should occur in a plasma-free space as well as in the empty plasma-free vacuum space far above the limb of the sun.

<sup>1</sup>This is an independent reseach.

<sup>2</sup>Gravitational deflection of light and radio waves exhibits severe impact parameter dependency. Evidence shows both microwaves and starlight deflect exactly at 1.75 arcsec at impact parameters along the solar plasma limb and not in plasma-free space above.

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None

Date submitted: 09 Jan 2013

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