Stellar aberration

A telescope is a coherent system, where the ray direction is relevant, since the telescope detects the orientation of plane wave fronts based on phase. This means surfaces with equal phase. Therefore, transverse ether wind *v* cannot cause wave front bending and not explain stellar aberration. See Fig 1.

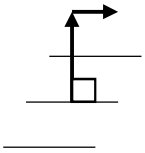

Fig. 1 Effect of ether wind

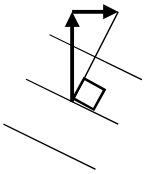

Fig. 2 Effect of observer motion

If light is moving with wave velocity **c** in relation to our sun and an observer is moving with the velocity **u** (also in relation to our sun), then light will move with velocity **c**-**u** in observer's frame. The observer will therefore see an effect as max *u/c* when **u** is orthogonal to **c**, since $u<<c$. This is the so-called rain drop effect, that was used to explain stellar aberration 300 years ago, and this relation is still, valid although we have shifted light model from particles to waves. The state of motion is relevant, not model. See Fig 2. The effect of the ether wind is real, but the effect of observer motion is apparent.

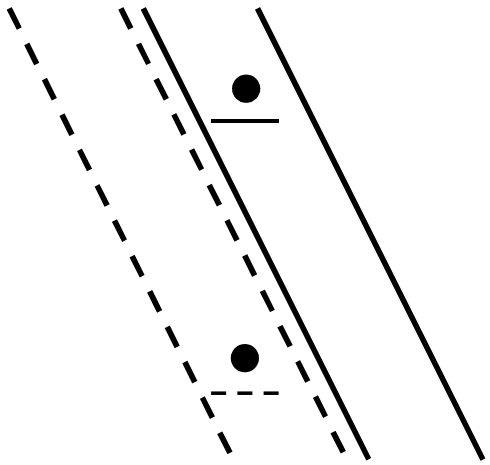

Fig. 3. This diagram illustrates that the raindrop effect is the same for a particle ● as for a wave —— and - - - . See also Fig. 1 demonstrating why transverse ether wind cannot explain stellar aberration.