Cerenkov Radiation
How Constant Velocity Charges Produce Light

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Abstract:
In this seminar I will present both the experimental and theoretical aspects of Cerenkov radiation. It was originally observed when liquids were exposed to radioactive particle, but was thought to be some form of luminescence. However the radiation was produced in many liquids, the radiation pattern was completely unlike luminescence, and the pattern was linked to the index of refraction of the material. Cerenkov, Tamm and Frank were able to elucidate the nature of this radiation, and successfully explain key features of the radiation.