

# Primary (conformal) photons

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We find that an evidence of primary (conformal) photons and their disappearance is a signal of phase transition in the vicinity of the Critical Point. The novel approach to an approximate scale symmetry breaking is developed for this. A scalar dilaton could be the dominant messenger between conformal sector and Standard Model. The origin of primary photons is conformal anomaly through the decays of the dilatons. In the experiments with scanning of the observables, the deviation of the primary photons escape rate  $R_{\gamma\gamma}$  from about  $\sim O(0.2)$ , compared to that of  $\pi^0 \rightarrow \gamma\gamma$  decay, to its vanishing will indicate the appearance of CP. At the CP no escape of the primary photons are seen.

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