

Abstract Submitted
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Continuous Bremsstrahlung in Trojan atoms and molecules

MATT KALINSKI, Utah State University — We present a fully relativistic approach to the electron radiation in Trojan atoms, atoms of hydrogen in circularly polarized electromagnetic field. Unlike for the normal scattering event the Bremsstrahlung is the continuous process and the cyclotronic radiation due to circular pseudo-scattering, when the electron is internally excited. Depending on the electromagnetic coupling order and the relativistic v/c order the corrections can be interpreted as the native spontaneous emission and the Unruh-Davies effect. All contributions have their classical correspondence in equivalent parts of Lienard-Wiechert potentials.

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