

Non-thermal radiation from super-Eddington winds in AGNs

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Accretion onto supermassive black holes can proceed in different regimes. When the accretion rate significantly exceeds the Eddington limit, the innermost part of the disk inflates as the radiation pressure becomes dominant and important mass loss in the form of a radiation-driven wind occurs. We will present the results of an investigation of the effects of these winds on clouds of the broad line region that surrounds the supermassive black hole in some Active Galactic Nuclei. Non-thermal radiation is produced by particles locally accelerated in the bow shocks formed around the clouds. The radio emission so generated can explain the detection of synchrotron radiation in non-jetted and usually radio quiet Seyfert galaxies.

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