

Abstract Submitted  
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**Jet Trigger Analysis for the ALICE Electromagnetic Calorimeter<sup>1</sup>**

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— The analysis of jets in ultra-relativistic heavy ion collisions with the ALICE experiment at the LHC requires a sophisticated trigger scheme to acquire a high statistics sample of high  $p_t$  jets. This can be implemented using the large area electromagnetic calorimeter (EMCal) proposed by the ALICE-USA Collaboration. A Level 1 EMCal jet trigger will be discussed and compared to an idealized leading  $\pi^0$  trigger in order to elucidate the underlying trigger behavior. The effect of fluctuations in the rather large background will be explored. It will be shown that a Level 1 trigger can select appropriate jet events efficiently while reducing the data rate to the required level. The necessity of a further reduction of the data rate requires the use of an efficient higher level multiplicity dependent jet trigger which will be discussed.

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