Abstract Submitted
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LHC Status and Upgrade Challenges[1] JEFFREY SMITH, SLAC National Accelerator Laboratory — The Large Hadron Collider has had a trying start-up and a challenging operational future lays ahead. Critical to the machine's performance is controlling a beam of particles whose stored energy is equivalent to 80 kg of TNT. Unavoidable beam losses result in energy deposition throughout the machine and without adequate protection this power would result in quenching of the superconducting magnets. A brief overview of the machine layout and principles of operation will be reviewed including a summary of the September 2008 accident. The current status of the LHC, startup schedule and upgrade options to achieve the target luminosity will be presented.

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