Abstract Submitted
for the HAW14 Meeting of
The American Physical Society

Production and Elliptic Flow of Dileptons and Photons in the semi-Quark Gluon Plasma ROBERT PISARSKI, Dept. of Physics and RIKEN/BNL Research Center, Brookhaven National Laboratory, CHARLES GALE, Dept. of Physics, McGill University, Montreal, YOSHIMASA HIDAKA, Theoretical Research Division, Nishina Center, RIKEN, Wako, Japan, SANGYONG JEON, Dept. of Physics, McGill University, Montreal, SHU LIN, RIKEN/BNL Research Center, Brookhaven National Laboratory, JEAN-FRANCOISE PAQUET, Dept. of Physics, McGill University, Montreal, DAISUKE SATOW, Theoretical Research Division, Nishina Center, RIKEN, Wako, Japan, VLADIMIR SKOKOV, Dept. of Physics, Western Michigan University, Kalamazoo, GOJKO VUJANOVIC, Dept. of Physics, McGill University, Montreal — We consider the thermal production of dileptons and photons at temperatures above the critical temperature in QCD. In the semi Quark Gluon Plasma (QGP), color excitations are suppressed by a small value of the Polyakov loop. Comparing the semi-QGP to the usual, perturbative QGP, we find a mild enhancement of thermal dileptons. In contrast, to leading logarithmic order in weak coupling there are far fewer photons from the semi-QGP than the usual QGP. To illustrate the possible effects we use a hydrodynamic model. Dileptons uniformly exhibit a small elliptical flow, but the strong suppression of photons in the semi-QGP tends to bias the elliptical flow of photons to that generated in the hadronic phase.

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Date submitted: 08 Jul 2014 Electronic form version 1.4