Abstract Submitted for the APR06 Meeting of The American Physical Society

Observation or the B_s Meson at the $\Upsilon(5S)$ VICTOR PAVLUNIN, Purdue University, CLEO COLLABORATION — Using the CLEO detector at the Cornell Electron Storage Ring, we have observed the B_s meson in e^+e^- annihilation at the $\Upsilon(5S)$ resonance. We have established that at the energy of the $\Upsilon(5S)$ resonance B_s production proceeds predominantly through the creation of $B_s^*\bar{B}_s^*$ pairs. We find $\sigma(e^+e^- \to B_s^*\bar{B}_s^*) = [0.11^{+0.04}_{-0.03}(\text{stat.}) \pm 0.02(\text{syst.})]$ nb. The mass of the B_s^* meson is measured to be $M_{B_s^*} = [5.414 \pm 0.001(\text{stat.}) \pm 0.003(\text{syst.})]$ GeV/ c^2 .

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Date submitted: 10 Jan 2006 Electronic form version 1.4