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Ibrahim Halil Aslan* (iaslan@vols.utk.edu), 1516 GreenBrier Ridge Way, Knoxville, TN 37909. *Impulse model of Leptospirosis in Cattle*. Preliminary report.

As one of the most widespread zoonotic disease, Leptospirosis became endemic particularly in tropical and subtropical regions where the environment provides favorable conditions for propagation of the disease. It causes a large economic loss in the livestock industry. In this talk, we introduce an SVIR dynamical system of ordinary differential equations with impulse actions of vaccination at certain times in order to investigate whether the disease can be controlled with current vaccine schedules. Some analytical and numerical results will be presented. (Received September 07, 2018)