1043-49-126   **Lianwen Wang***, Dept. of Mathematics and Computer Science, University of Central Missouri, Warrensburg, MO 64093. *Dual Optimal Control Problems of Neutral Differential Equations.*

In this talk we consider optimal control of control systems governed by linear neutral differential equation with convex cost index where time delays appear in the convex cost index and the neutral differential equation. With the help of duality scheme, which yields a dual problem similar to the primal problem, we obtain necessary and sufficient optimality conditions in the subdifferential form. This is a joint work with Boris Mordukhovich. (Received August 23, 2008)