

İSTANBUL TEKNİK ÜNİVERSİTESİ MATEMATİK MÜHENDİSLİĞİ BÖLÜM SEMİNERİ

Prof.Dr. Elimhan N. Mahmudov

Sufficient Conditions of Optimality for Higher Order Differential Inclusions with Endpoint Constraints

Abstract. In the paper minimization of integral functional in the set of solutions of higher order differential inclusions (P_{HBV}) is studied. Our aim is to derive sufficient conditions of optimality for boundary value problems (P_{HBV}) of s th-order convex and non-convex differential inclusions. The sufficient conditions containing the Euler-Lagrange and Hamiltonian type inclusions as a result of endpoint constraints are accompanied by formulated so-called transversality conditions. Here the basic apparatus of locally adjoint mappings (LAMs) is suggested. An application begins with a concise approach to calculus of variations and as a result is derived the Euler-Poisson equation.

<u>Tarih:</u> 23 Ekim 2015 Cuma <u>Yer:</u> Fen-Edebiyat Fakültesi B1-326, 3. Kat <u>Saat</u>: 15:00-16:30 <u>İkram</u>: 15:00-15:30 <u>İletişim</u>: guldengun@itu.edu.tr