Ayşegül Yıldız Ulusu (Galatasaray University):

<u>Title</u>: Solving optimal growth problem as a dynamical system which is governed by a difference (in)equation

<u>Abstract</u>: In this paper, I aim to apply the approach of weak Pontryagin's principles to a class of discrete time infinite horizon optimal growth problems. The idea of this approach is to transform the optimal growth problem into a dynamical system which is governed by a difference equation or a difference inequation. I establish necessary and sufficient conditions of optimality in terms of weak Pontryagin's principles.