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ON THE ASYMPTOTIC BEHAVIOR OF DYNAMIC RENT-SEEKING GAMES

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Abstract. Dynamic rent-seeking games with nonlinear cost functions are analyzed. The local asymptotical stability of the solution is first examined. We show that in the absence of a dominant agent all eigenvalues of the Jacobian are real. Conditions are given for the local asymptotical stability as well as for the local instability of the equilibrium. In the presence of a dominant agent complex eigenvalues are possible. Simple stability conditions are presented for cases when all eigenvalues are real, and the possibility of limit cycles is analyzed in the case of complex eigenvalues.

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