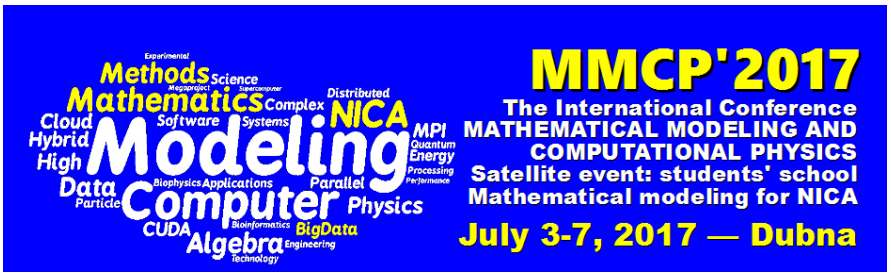

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Finding the spectral characteristics for systems with control

Friday, 7 July 2017 15:00 (15 minutes)

We are studying the process of global synchronization in systems with control. As a control system, we study the continuous model of the active control module of the type RED [1-3]. We apply the method of harmonic linearization. To simplify the model, we applied the following: the model is written in moments; The model describes only the phase of avoiding overloading of the TCP Reno protocol; In the model, only the reset is considered when obtaining 3 consecutive ACK acknowledgments.
To determine the region of occurrence of auto-oscillations, we use the Routh-Hurwitz criterion, and to determine the self-oscillation parameters, the Mikhailov criterion.
Next, we use the Fast Fourier Transform method to obtain the spectral characteristic. Verify the model with NS2.

Short biography note

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