

Dear Editor,

We would like to submit the manuscript entitled "Stability Analysis of Discretized Structure Systems Based on the Complex Network with Dynamics of Time-varying Stiffness", which we wish to be considered for publication in ***MATHEMATICAL METHODS IN THE APPLIED SCIENCES***.

I would like to declare on behalf of my co-authors that the work described above has not been submitted elsewhere for publication, in whole or in part, and the manuscript is approved by all the authors listed for publication. No conflict of interest exists in the submission of this paper. We believe that the following aspects of this manuscript will make it interesting to general readers of your journal.

(1) The discretized structure system (DSS) can be regarded as the complex dynamic network, in which the discretized elements are chosen as the dynamic nodes and the time-varying stiffness as the dynamic link relations between them;

(2) The dynamical model of stiffness variation is regarded as the behavior of link subsystem, which is represented by the differential equation coupled with the displacement and velocity state of discretized elements, which is seldom shown in the existing literature;

(3) In case of the external force is loaded, the coupled term in stiffness variation dynamics is mathematically synthesized to influence the elements achieving the uniformly ultimately bounded (UUB) stability in Lyapunov sense, which is seldom discussed in the existing literature.

We deeply appreciate your consideration of our manuscript.

Best regards.

Yours sincerely,

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