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# **Positive Systems: Theory and Application**

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### **Message from the Guest Editors**

Dear Colleagues,

In positive systems, all state variables take only nonnegative values whenever the initial state and input are non-negative. We deal with positive systems while modeling some dynamics in engineering, biology, chemistry, economics, social sciences, and other areas.

Positive systems should be seen as a subfamily of systems characterized by the invariance property in some regions of state-space. The fact that a system is positive requires the use of appropriate design control methods. While a lot of results have already been obtained for positive linear systems, nonlinear positive systems still require a lot of attention.

The purpose of this Special Issue is to gather original research articles reflecting the latest developments in both theory and applications of positive and, more generally, invariant systems, with particular emphasis on their modeling, properties, and control design methods.

Dr. Wiktor Malesza Prof. Dr. Tadeusz Kaczorek *Guest Editors* 









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### Message from the Editor-in-Chief

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