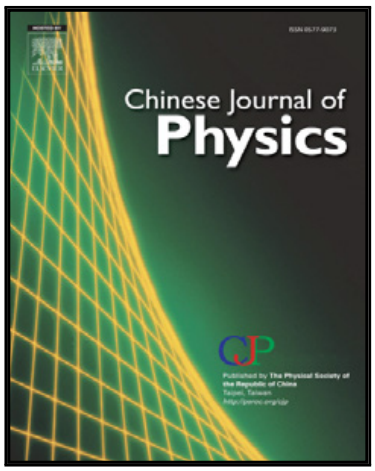

Stability Analysis and Control of the Glucose Insulin Glucagon System in Humans

Muhammad Farman , Muhammad Umer Saleem , M.O. Ahmed , Aqeel Ahmad

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Highlights

- Glucagon plays an important role in the development of an artificial pancreas.
- Controllability and observability of the system are discussed for a closed loop design.
- The Lyapunov equation is used to check the stability analysis of the model.
- We designed a proportional-integral-derivative (PID) controller for an artificial pancreas.