

About
Stability–Behavior
of
linear Structures
in
Space–Time Transitions.

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1. Abstract.

Authors like D.CAMPBELL[1], J.GUCKENHEIMER, P.HOLMES[4], H.HAKEN[6], H_O.PEITGEN, H.JÜRGENS, D.SAUPE[9] and many others told, that various solution elements for the dynamics of nonlinear systems (like stationary points or inner cycles e.g.) can change their stability behavior, as soon as certain system parameters are modified appropriately. Caused by these so called bifurcations very often the whole topology of an appropriate structure may completely be changed. Similar effects in connection with linear structures could not be observed so far. But for linear structures these kinds of phenomena will also become existent as soon as specific spacetime transformations are applied.

Changes in stability behavior of linear structures due to transformations in spacetime will be the item of this article. Such investigations are motivated:

- Because it is very interesting primarily to realize that structural instabilities can happen for linear structures too and secondarily to know about the reasons for such a behavior.
- Because such insights in mind may be helpful for observations of cosmic events that occurred under spacetime conditions which are completely different from those on earth.