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## Abstracts of Short Communications and Posters

### Section:

## 9. Ordinary Differential Equations and Dynamical Systems

Boundaries
1991 MS Classification: not given

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**On Singularities of Stability Domain Boundaries**

Generic singularities of stability domain boundaries in a parameter space for systems governed by autonomous linear differential equations $\dot{y} = Ay$ or $x^{(m)} + a_1 x^{(m-1)} + \cdots + a_m x = 0$ are considered. It is assumed that elements of the matrix $A$ and coefficients of the differential equation of $m^{-\mathrm{th}}$ order smoothly depend on one, two or three real parameters. A constructive approach allowing to determine the geometry of singularities (orientation in space, magnitudes of angles etc.) with the use of tangent cones to the stability domain is suggested. Physical examples are given.