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## II

### Free Discussion / Discussion libre / Freie Diskussion

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The problem treated by Dr.Paloheimo has been investigated by Dr.Vorlíček and me since 1961 (see Ref. 1, 2, 3). The basic idea of our approach has been as follows:

An interaction curve describing the ultimate strength of a section subjected to a two-dimensional load-effect (e.g. moment with axial force, moment and shear force, etc.) is a random function. Sections can be led through the population of interaction diagrams and values of random variables describing the ultimate strength (e.g.  $M_U, N_U$ ) can be established along these sections. Then, assuming a convenient statistical distribution minimum values ( $M_{U,min}, N_{U,min}$ ) are found for a given probability  $\mu$ . The locus of points defined by the minimum values is the minimum strength curve which can be used in the statistical design.

The same method is applicable also in other cases of multi-dimensional load-effects or loads.

#### References:

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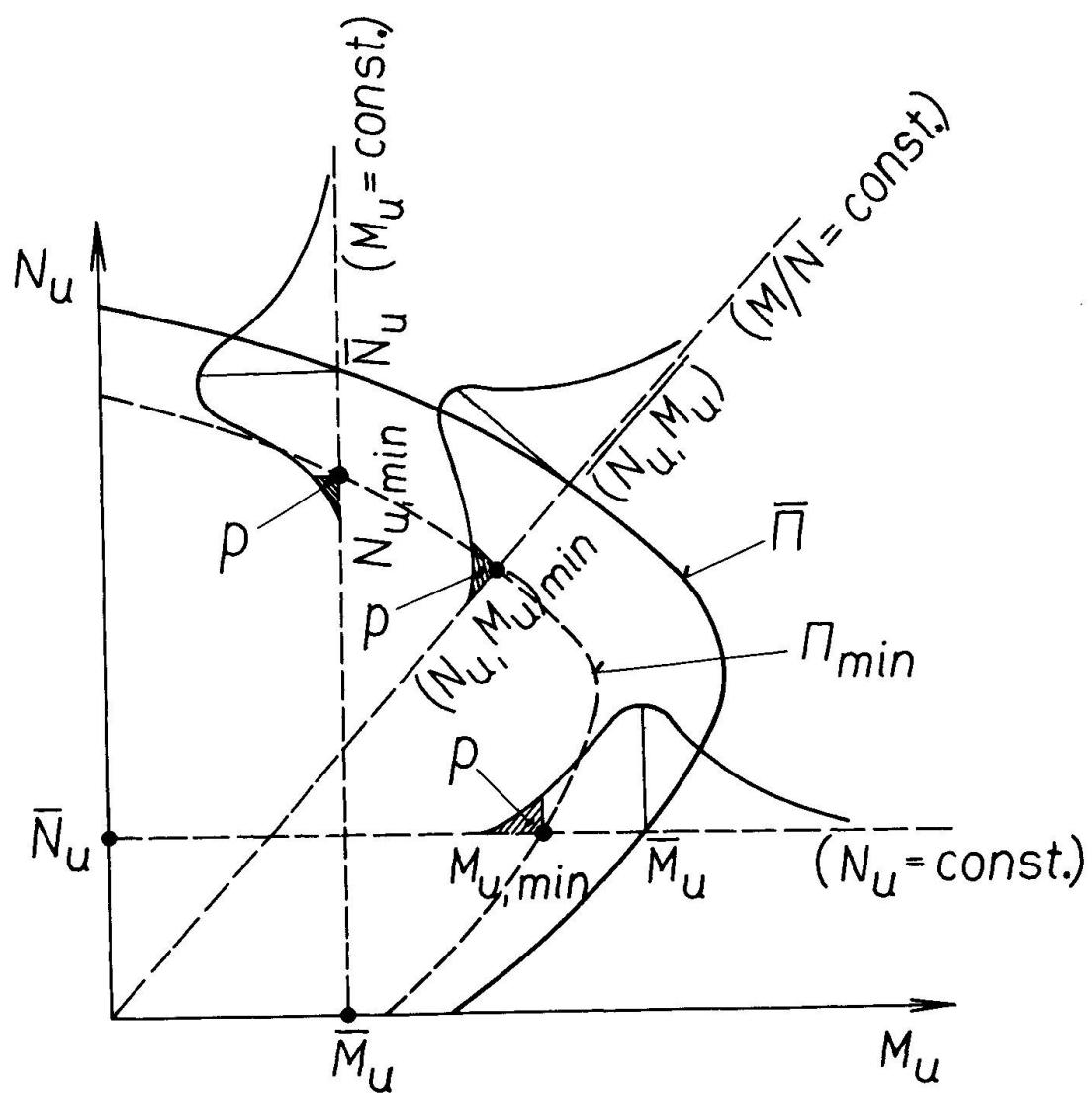


Fig. 1