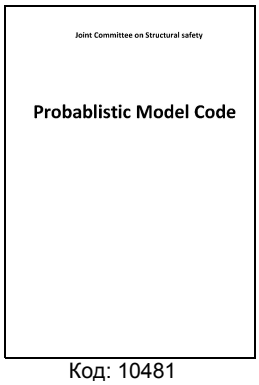

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Probabilistic model code. Part 1

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This document is a first attempt to put together in a consistent way some - certainly not all - of the rules, regulations, and explanations that are necessary for the design of new structures, or the assessment of existing ones from a probabilistic point of view. The document, of course, is also useful for background calculations of non -probabilistic codes.

From a probabilistic point of view designing new structures, or accepting existing ones as sufficiently safe, is the result of a decision-making process guided by some optimality criteria. This process links, in a logical and consistent way, the requirements and expectations of the client or owner of a structure, the loads and actions to be expected, the characteristics of materials to be used or found in the proposed or existing structure, the calculation models, the grades of workmanship expected or observed on the site, the behaviour of the users, and, finally, in an ideal case, the perceptions of society with respect to environmental impact and sustainable development.

The aim of this document is threefold: First, it is the attempt of a number of people interested in such an approach to see whether, at this point in time, the main problems in the development of such a document can be mastered. Second, it is intended to put a text into the hands of structural engineers who are willing now to apply new approaches in their work. Third, the Joint Committee on Structural Safety (JCSS) is convinced that such a document will spur the development of a Probabilistic Code covering all aspects of Structural Engineering.

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