



Cracking : the past, the present and the future, a never-ending story



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ABSTRACT

Pavement research got a major boost by the execution of the AASHO Road Test in the late 1950's early 1960's. Since then a huge amount of research was done on the prediction of defect types like permanent deformation, raveling, cracking etc. The question we are facing now is "what have we learned from all our efforts" did we manage to fully understand the cracking phenomenon as caused by the combined influences of traffic, environment and ageing? If this is not the case we have to define the problems that still need to be solved and what kind of research is needed to arrive to these solutions. If the answer is "yes" then we should ask ourselves to what extend the results have been implemented in practice and to what extend this has resulted in improved pavement performance.

The presentation will start with a short overview of the cracking research history and how the results are implemented in design systems. Then the "state of the art" will be discussed as well as some shortcomings in the current design systems and used cracking models. Ample attention will be given to material characterization and test methods which will result in some statements with respect to preferred test methods (some may be provocative). This includes a critical review of some European norms. Based on this some proposals with respect to future research will be made.

Finally a number of construction aspects will be discussed which heavily influence pavement performance.

