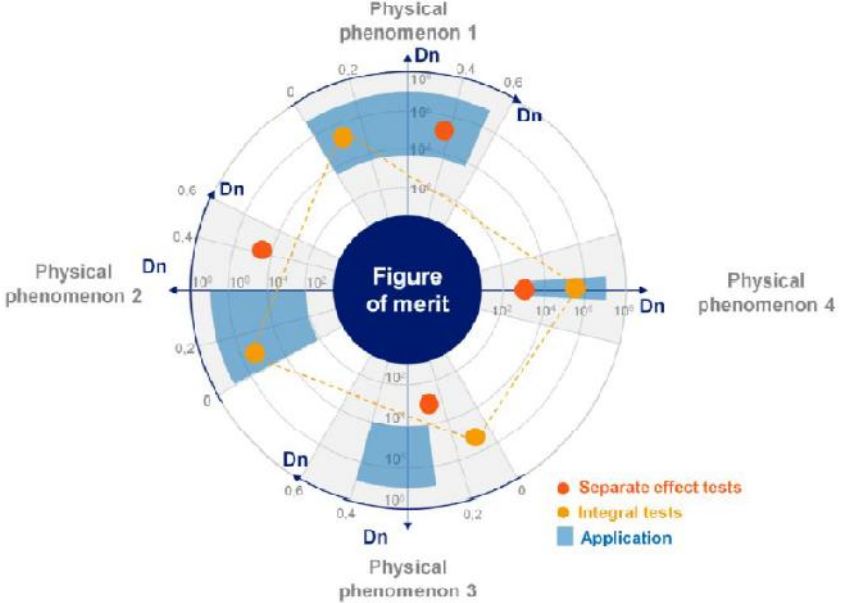


*SUpport to SAfety ANalysis of Hydrogen and Fuel Cell Technologies*

<b>Verification type</b>	Sensitivity Studies (Grid and Parameter sensitivity)
<b>Database reference</b>	SEN-4
<b>Topic / Application</b>	Nuclear Safety Verification and Validation
<b>Physics</b>	Boron Dilution Transient
<b>Summary</b>	Presents an identification and ranking of the main physical phenomena in a nuclear safety simulation, to inform appropriate use of codes.
<b>Description</b>	<p>The representation of application and validation domains has been studied by the authors . Though the application is validation the processes for identifying and ranking physics can be applied to verification, where the ranking is applies to the equivalent mathematical terms in the equations to be solved, ensuring that errors in small terms are not swamped by larger terms.</p> <p>The representation of application and validation domains has been studied by the authors. For each physical phenomenon identified, dimensionless numbers are used to evaluate the ratio of parameters of strong influence. Every validation test or industrial application can thus be plotted and defined by a range of values for dimensionless numbers. The relevance of domains representation is thus based on the confidence in the physical analysis.</p>
<b>Case Title</b>	USING THE PIRT TO REPRESENT APPLICATION AND VALIDATION DOMAINS FOR CFD STUDIES
<b>Authors</b>	B. Gaudron <sup>1</sup> , H. Cordier <sup>1</sup> , S. Bellet <sup>1</sup> , D. Monfort <sup>2</sup>
<b>Year</b>	
<b>Online reference</b>	bruno.gaudron@edf.fr

## Support to Safety Analysis of Hydrogen and Fuel Cell Technologies

<p><b>Case image</b></p>	 <p>Generic overview of application and validation domain representation (Dn = dimensionless number)</p>
<p><b>Governing equations</b></p>	
<p><b>Results</b></p>	