ID - 01432 Model Generation and Mathematical Modelling

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Abstract: Mathematical modelling has two issues: first, to create a model of a dynamic system using expert knowledge and second, to discover a model using the measured data. We observe the model-driven and the data-driven approaches to the model creation problem and propose the new combined one. It gathers strong sides of classical approaches: the result model could be explained by experts and it fits measured data well. The new technique is illustrated by the model of pressure in combusting camera of diesel engine.

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