Documentation: computeModels.R

Function	`computeModels()`
File version	1.0
Last updated	6 December 2020
Associated source code file	www.github.com/bsh2/Fitness-Fatigue-Models/tree/docs-and-utilities/software/utilities/computeModels.R
Dependencies (packages required)	`deSolve`
Functionality	Compute model predictions for a defined set of parameter values and a training load series. Covers the standard and fitness-delay (calvert) model, Turner et al. (2017) model, and Banister's original model system.

1. Usage

```
computeModels(model = NULL, parms = NULL, loadSeries = NULL)
```

All three arguments are required to be specified by user

2. Arguments

`loadSeries` is a vector of consecutive training load values (positive or zero values). The length of which determines the length of the model predictions. The remaining argument options are specified as follows

Model	Relates to	Parms	Fn returns
`model = "standard"`	The standard FFM	`c(p*,kg,Tg,kh,Th)`	Data frame of three columns (`fitness`, `fatigue`, `performance`)
`model = "standardIC"`	The standard FFM with initial components	`c(p*,kg,Tg,kh,Th,qg,qh)`	Data frame of three columns (`fitness`, `fatigue`, `performance`)
`model = "calvert"`	The fitness-delay variation of the standard model	`c(p*,kg,Tg1,Tg2,kh,Th)`	Single vector of performance values
`model = "calvertIC"`	The fitness-delay variation of the standard model with initial components	`c(p*,kg,Tg1,Tg2,kh,Th, qg,qh)`	Single vector of performance values
`model = "banister"`	Solve and compute the original model system	`c(kg,kh,Tg,Th,p*,g0,h0)`	Data frame consisting of columns for fitness, fatigue and performance

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`model = "turner"`	Solve and compute the non-linear variant of the original model system	`c(kg,kh,Tg,Th,alpha,beta, p*,g0,h0)`	Data frame consisting of columns for fitness, fatigue and performance