

## List of modifications

In this document, the authors list the modifications applied to the revised version of the manuscript *Non-intrusive reduced-order modeling of nonlinear problems using neural networks*. Modifications are ordered based on their location in the text. For each modification, we specify the page, paragraph and line(s) at which it occurs; its content; its source (either anonymous or not); and the colour used to highlight it in the text.

Location	Content	Source	Colour
Page 1, Abstract, line 12	Refer to the Levenberg-Marquardt algorithm as LM	The authors	Green
Page 7, Section 4.1, line 266	Replace "activation pattern" with "input vector"	Reviewer #2	Red
Page 8, Section 4.2, line 275	Replace "activation pattern" with "input vector"	Reviewer #2	Red
Page 8, Section 4.2, line 276	Rephrase the sentence "For each hidden layer its output signals give the input pattern for the following layer" as "In turn, the outputs of each hidden layer feed the neurons in the following layer"	Reviewer #2	Red
Page 9, Section 4.3, line 298	Replace "training patterns" with "training data"	Reviewer #2	Red
Page 9, Section 4.3, line 302	Replace "training patterns" with "training data"	Reviewer #2	Red
Page 9, Section 4.3, line 307	Replace "input pattern" with "training input"	Reviewer #2	Red
Page 9, Section 4.3, line 307	Replace "teaching input" with "desired output"	Reviewer #2	Red
Page 9, Section 4.3, line 325	Replace "input pattern" with "input vector"	Reviewer #2	Red
Page 9, Section 4.3, line 325	Replace "teaching input" with "desired output"	Reviewer #2	Red
Page 9, Section 4.3, line 326	Replace "input pattern" with "input vector"	Reviewer #2	Red
Page 9, Section 4.3, line 328	Refer to the Levenberg-Marquardt algorithm as LM	The authors	Green
Page 9, Section 4.3, lines 328 – 330	Add practical details regarding the implementation of the LM algorithm	Reviewer #2	Red
Page 9, Section 4.3, line 330	Refer to the Levenberg-Marquardt algorithm as LM	The authors	Green
Page 10, Section 5, line 368	Replace "input pattern" with "training input"	Reviewer #2	Red
Page 10, Section 5, line 368	Replace "teaching input" with "desired output"	Reviewer #2	Red
Page 10, Section 5, line 368	Replace "teaching input" with "output vector"	Reviewer #2	Red
Page 10, Section 5, line 369	Replace "teaching inputs" with "teaching data"	Reviewer #2	Red
Page 11, Section 5, line 387	Replace "training patterns" with "training data"	Reviewer #2	Red
Page 13, Section 6, lines 436 – 440	Add details on how neural networks are trained in the practice	Reviewer #2	Red
Page 14, Section 6.1.1, lines 481	Modify the boundary conditions for the Poisson problem (6.8), so that the exact solution reads $u_{ex}(x; \boldsymbol{\mu}) = \mu_2 \sin(2 + \mu_1 x) \exp(\mu_3 x)$	N. L. Mundis	Blue
Page 14, Section 6.1.1, lines 483	Correct the form of the exact solution for the Poisson problem (6.8): from $u_{ex}(x; \boldsymbol{\mu}) = \mu_2 (2 + \sin(\mu_1 x)) \exp(\mu_3 x)$ to $u_{ex}(x; \boldsymbol{\mu}) = \mu_2 \sin(2 + \mu_1 x) \exp(\mu_3 x)$	N. L. Mundis	Blue

Page 15, Section 6.1.1, line 487	Replace "training patterns" with "training data"	Reviewer #2	Red
Page 15, Section 6.1.1, Figure 6.2	Add the two rightmost plots and update the caption accordingly	Reviewer #2	Red
Page 15, Section 6.1.1, lines 502 – 512	Add comments about the two plots which have been added to Fig. 6.2	Reviewer #2	Red
Page 17, Section 6.1.2, lines 535 – 537	Add comments about the offline run time for both the POD-G and the POD-NN methods	Reviewer #2	Red
Page 17, Section 6.1.2, line 540	Replace "learning patterns" with "learning data"	Reviewer #2	Red
Page 17, Section 6.1.2, line 541	Replace "learning patterns" with "learning data"	Reviewer #2	Red
Page 18, Section 6.1.2, line 561	Replace "training patterns" with "training data"	Reviewer #2	Red
Page 22, Section 6.2.1, Figure 6.10	Swap the top-left panel with the bottom-left one and modify the caption accordingly	The authors	Green
Page 22, Section 6.2.1, line 653	Replace <i>left</i> with <i>top</i>	The authors	Green
Page 22, Section 6.2.1, line 654	Replace <i>right</i> with <i>bottom</i>	The authors	Green
Page 22, Section 6.2.1, line 655	Replace "on the top" with "on the left"	The authors	Green
Page 23, Section 6.2.1, line 656	Replace "on the bottom" with "on the right"	The authors	Green
Page 23, Section 6.2.1, Figure 6.11	Swap the top-left panel with the bottom-left one and modify the caption accordingly	The authors	Green
Page 23, Section 6.2.1, line 666	Replace <i>right</i> with <i>bottom</i>	The authors	Green
Page 23, Section 6.2.1, line 667	Replace <i>top</i> with <i>left</i>	The authors	Green
Page 23, Section 6.2.1, line 668	Replace <i>bottom</i> with <i>right</i>	The authors	Green
Page 27, References, line 744	Add reference [19]	The authors	Green
Page 27, References, lines 763 – 764	Add reference [30]	The authors	Green
Page 27, References, line 778	Add reference [38]	The authors	Green