This is and Awesome Paper for NSE

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In a Galaxy Far Far Away

Abstract

The abstract should be typed on a separate page (complete with the title and names of the authors). The abstract should not contain Reference citations. The abstract should be brief. Authors should provide up to three (3) keywords at the end of the abstract.

Keywords: awesome, paper, template

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I Section

The text of a manuscript is to be organized into sections, with first-level headings (I., II., etc.)

I.A Subsection

Second-level headings (I.A., I.B., etc.)

I.A.1 Subsubsection

Third-level headings (I.A.1, I.A.2, etc.)

II Equations

All mathematical equations should be carefully checked to ensure their correctness. Equation numbers should be Arabic numerals enclosed in parentheses to the right of the equation.

$$f(x) = x + 1 \tag{1}$$

Equation (1) is equivalent to

$$f(x) = x + 2 - 1 \tag{2a}$$

$$f(x) = x + 3 - 2 \tag{2b}$$

and Eqs. (2) are equivalent to

$$f(x) = x + (n + 1) - n\,. \tag{3}$$

That is, Eqs. (1) and (3) are also the same.

III Citations

Citations in the text to references shall be numerics strictly in order of their first appearance. Authors are referred to any recent issue of Nuclear Science and Engineering for formats. Authors are strongly encouraged to supply the full titles for the respective references. References must be listed in numerical sequence, double spaced, on a separate page.

You should edit *references.bib*. This is a book [1]. This is a book chapter [2]. This is a journal article [3]. This is a paper in proceedings [4].

IV Tables and Figures

Tables must be numbered in Roman numerals in the order they are called out in the text. A title must accompany each table. Authors are strongly encouraged to submit figures in a high-resolution electronic format. Preferred electronic formats for figures include TIFF (line drawings at least 600 dpi, halftone or grayscale images at least 300 dpi); EPS (with embedded fonts); or PDF (with embedded fonts). Lines and rules in figures should be at least 0.5 points (half-point rules) with an absolute minimum 0.25 points. Figures must be numbered in Arabic numerals in the order they are called out in the text. A descriptive caption must accompany each figure. Please be sure to embed the figures and tables in the text, though you may also additionally include them at the end of the manuscript.

For a table template, check out Table I. For a regular figure with subfigures, check out Fig. 1. For subfigures with subsubcaptions, see Fig. 2.

References

[1] G. POMRANING, *Linear Kinetic Theory and Particle Transport in Stochastic Mixtures*, World Scientific Press, Singapore (1991).

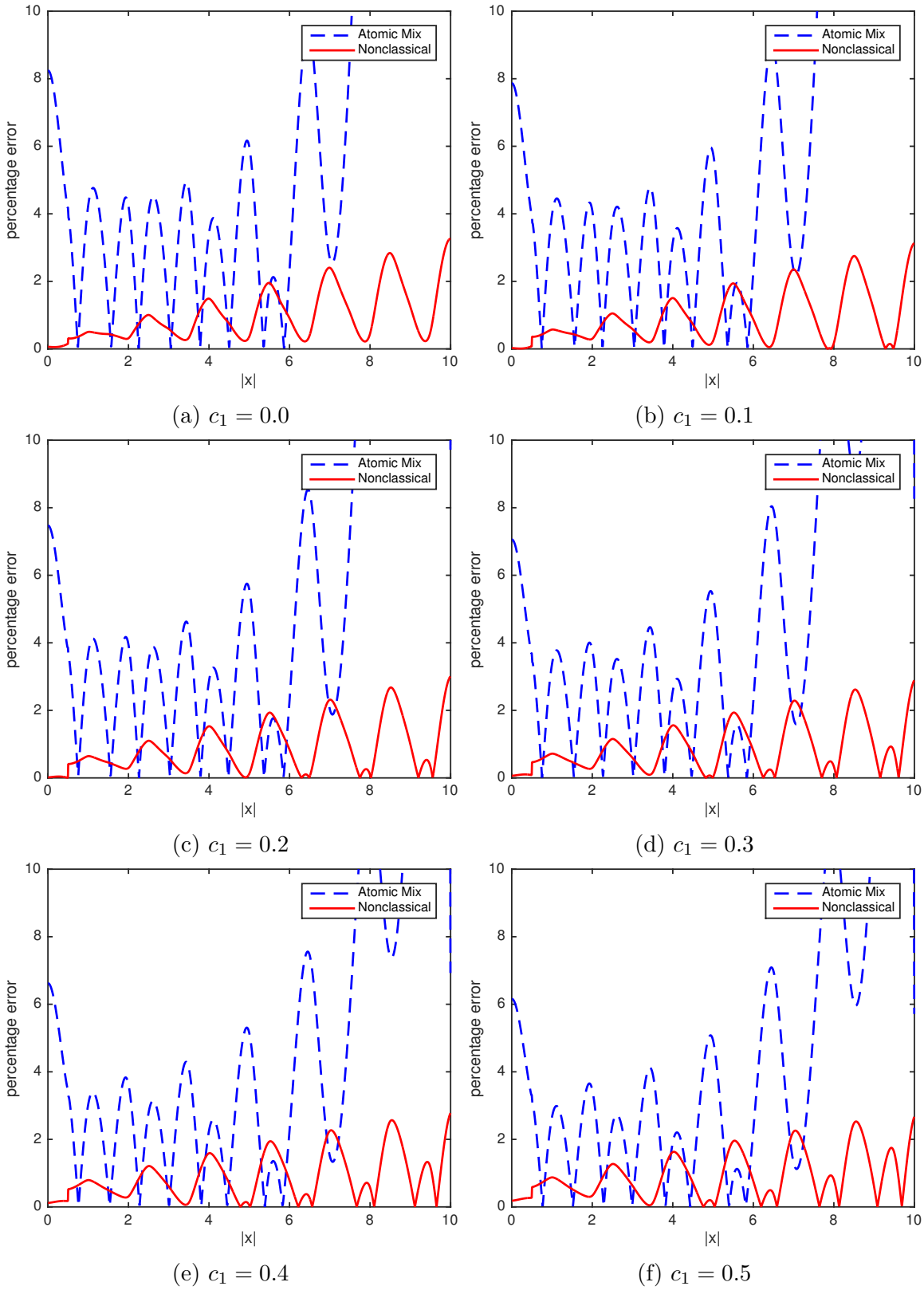
[2] F. GOLSE, "Recent Results on the Periodic Lorentz Gas," in *Nonlinear Partial Differential Equations*, edited by X. CABRÉ and J. SOLER, pages 39–99, Springer Basel, New York, NY, 2012.

[3] R. VASQUES, "The nonclassical diffusion approximation to the nonclassical linear Boltzmann equation," *Appl. Math. Lett.*, **53**, 63 (2016).

[4] R. VASQUES and K. KRYCKI, "On the accuracy of the non-classical transport equation in 1-D random periodic media," in *Joint International Conference on Mathematics and Computation, Supercomputing in Nuclear Applications and the Monte Carlo Method*, Nashville, TN, Apr. 19-23, 2015.

Table I: Ensemble-averaged scalar fluxes for problem set

	c	ϕ_B	ϕ_{AM}	ϕ_{NC}	Err_{AM}	Err_{NC}
$x = 0$	0.0	0.1420	0.1537	0.1421	0.0824	0.0006
	0.1	0.1509	0.1628	0.1509	0.0787	0.0002
	0.2	0.1614	0.1734	0.1613	0.0747	-0.0001
	0.3	0.1740	0.1862	0.1738	0.0706	-0.0006
	0.4	0.1895	0.2021	0.1893	0.0662	-0.0012
	0.5	0.2094	0.2223	0.2091	0.0616	-0.0019
	0.6	0.2360	0.2493	0.2353	0.0567	-0.0026
	0.7	0.2735	0.2876	0.2725	0.0515	-0.0036
	0.8	0.3316	0.3469	0.3300	0.0462	-0.0048
	0.9	0.4360	0.4541	0.4333	0.0413	-0.0063
	0.95	0.5287	0.5496	0.5249	0.0397	-0.0072
	0.99	0.6472	0.6728	0.6421	0.0395	- 0.0079
$x = 10$	0.0	0.0063	0.0071	0.0061	0.1294	-0.0326
	0.1	0.0076	0.0085	0.0074	0.1128	-0.0313
	0.2	0.0093	0.0103	0.0091	0.0972	-0.0301
	0.3	0.0116	0.0126	0.0113	0.0826	-0.0289
	0.4	0.0148	0.0158	0.0143	0.0693	-0.0278
	0.5	0.0191	0.0202	0.0186	0.0571	-0.0267
	0.6	0.0255	0.0267	0.0248	0.0464	-0.0256
	0.7	0.0354	0.0367	0.0345	0.0371	-0.0244
	0.8	0.0520	0.0535	0.0508	0.0297	-0.0231
	0.9	0.0841	0.0863	0.0823	0.0251	-0.0216
	0.95	0.1141	0.1169	0.1117	0.0246	-0.0206
	0.99	0.1533	0.1573	0.1503	0.0259	-0.0196

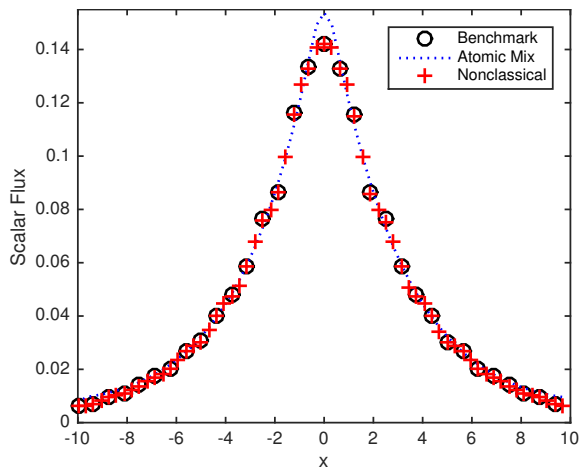


(a) $c_1 = 0.0$ (b) $c_1 = 0.1$

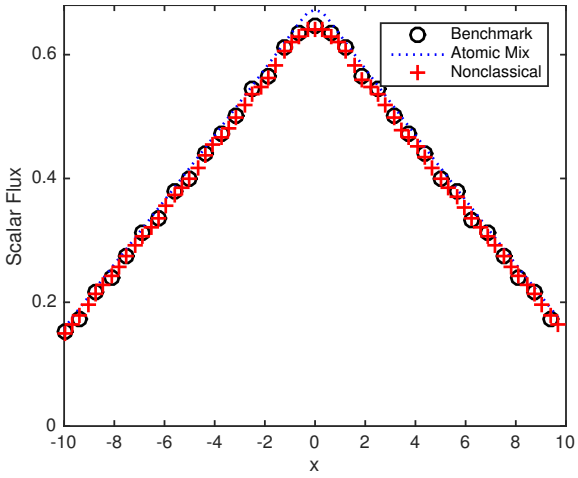
(c) $c_1 = 0.2$ (d) $c_1 = 0.3$

(e) $c_1 = 0.4$ (f) $c_1 = 0.5$

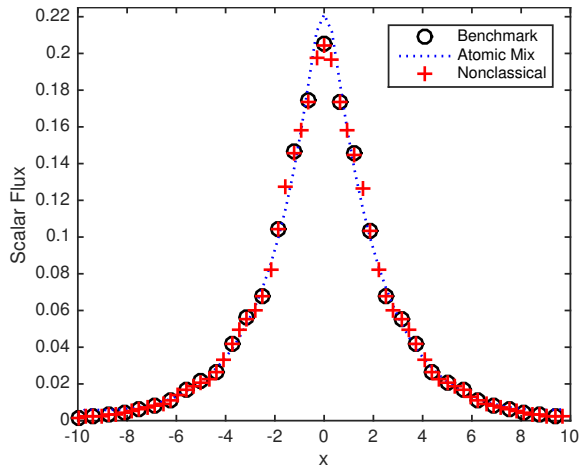
Figure 1: Subfigures



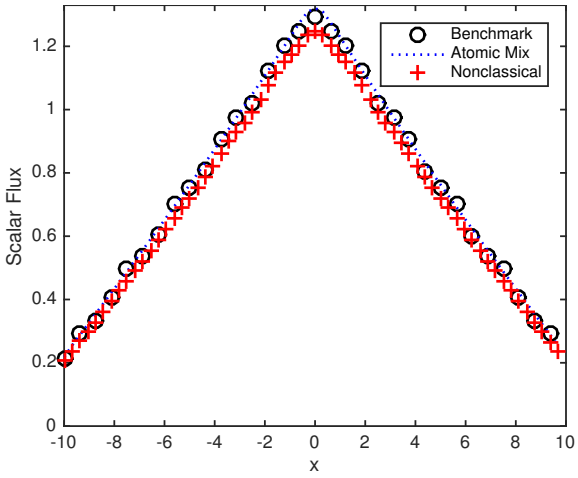
(a.i) Caption



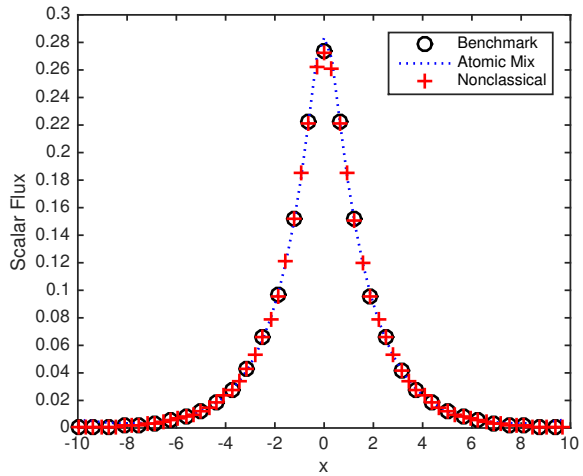
(b.i) Caption



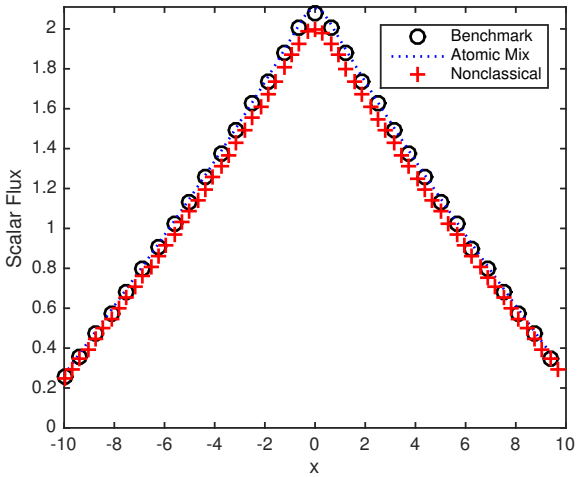
(a.ii) Caption



(b.ii) Caption



(a.iii) Caption



(b.iii) Caption

Figure 2: Subfigures with subsubcaptions