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List of Corrections of PhD Thesis

Symmetry Reductions of Systems of Partial Differential Equations using Conservation Laws

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Chapter 1:

- Page 3, second line from the top – changed the word “Drinfel'd” to “Drinfeld.”
- Page 5, third line from the top – explained the summation convention in a more appropriate way.
- Page 5, fourth line from the top – rephrased the sentence to now read as “It will be denoted that A is the universal vector space of differential functions, thus consider...”
- Page 6, just before equation (1.9) – removed “(x,u,u_(1),...)” and denoted the multiplier to be an element of A.

Chapter 2:

- Page 10, third line from the top – changed “0 degrees” to “zero degrees.”
- Page 11, last paragraph at the bottom – modified the paragraph with a better explanation of the parametrically damped-driven nonlinear Schrödinger equation, and included extra references.
- Page 12, bottom of page – title of section 2.2 now starts on the next page.
- Page 14, eleventh line from the top – changed the word “Thus” to “Therefore.”
- Page 15, third line from the top – changed the word “Thus” to “Therefore.”
- Page 18, seventh line from the top – put a comma after “(2.15).”
- Page 18, eleventh line from the top – replaced “After substituting (2.19) and (2.21) into (2.23), and then dividing both sides by 2,...” by “Then substituting (2.19) and (2.21) into (2.23), and dividing both sides by 2,...”
- Page 20, sixth line from the bottom – changed the word “Thus” to “Therefore.”

- Page 25, last line at the bottom – changed the word “Thus” to “Therefore.”
- Page 26, eleventh line from the top – changed the word “Thus” to “Therefore.”
- Page 29, seventh and eighth lines from the top – now reads as “We now substitute (2.54) and (2.56) into (2.58), then dividing both sides by -2ck, this results in the ODE...”
- Page 31, twelfth line from the top – changed the word “Thus” to “Therefore.”
- Page 35, under section 2.4, first line – changed “GP” to “Gross-Pitaevskii.”

Chapter 3:

- Page 37, ninth line from the top – corrected the word 'mid-way.'
- Page 37, twelfth line from the top – changed the word “list” to “calculate.”
- Page 38, first and second lines from the top – changed the word “Drinfel'd” to “Drinfeld.”
- Page 38, seventh line from the top – changed “unusual and...” to read as “unusual which...”
- Page 39, fifth line from the top – explained the reasoning for choosing m=u.
- Page 39, equation (3.6) – renamed the Lie point symmetry from “X” to “Z.”
- Page 40, second line from the top – removed the words “computer algebra system.”
- Page 40, eighth line from the top – explained the reasoning for choosing m=u and m=cosu.
- Page 42, last line at the bottom – explained the reasoning for choosing m=u^β.
- Page 43, first line at the top – explained the reasoning for choosing m=e^u.
- Page 43, tenth line from the top – explained the reasoning for choosing m=u and m=e^u.
- Page 45, third line from the bottom – changed the word “Thus” to “Therefore.”
- Page 48, first line at the top – made the partial derivative with respect to r a smaller size.
- Page 50, fifth line from the top – changed the word “Thus” to “Therefore.”
- Page 52, title of section 3.4 – changed the word “Drinfel'd” to “Drinfeld.”

- Page 54, third line from the top and sixth line from the bottom – changed the word “Thus” to “Therefore.”
- Page 59, fifth line from the bottom – changed the word “Thus” to “Therefore.”
- Page 63, the heading case 3 – removed “b≠k.”
- Page 64, eleventh line from the top – changed the word “Thus” to “Therefore.”
- Page 65, first line at the top – changed the word “Thus” to “Therefore.”
- Page 68, eighth line from the top – changed “DSW” to “Drinfeld-Sokolov-Wilson.”

Chapter 4:

- Page 70, third line from the bottom – replaced “The second plasma physics model we will consider is as follows” by “The second plasma physics model we will consider is based on Alfvén waves.”
- Page 70, last two lines at the bottom – replaced “Alfvén suggested the existence of elecmagnetic-hydromagnetic waves, which are well-known as Alfvén waves [2]” by “Alfvén suggested the existence of electromagnetic-hydromagnetic waves [2].”
- Page 71, last line before section 4.2 – removed the word “will.”
- Page 79, third line from the bottom – changed “GZE” to “generalized Zakharov equation.”
- Page 80, first line at the top – replaced “a CDA wave equation” by “an Alfvén wave equation.”

Chapter 5:

- Page 82, last line at the bottom – removed the word “will.”

Bibliography:

- Page 91 – modified reference [30] to include a volume number, issue number and page numbers of the journal.
- Page 96 – modified reference [68] to include a volume number, issue number and page numbers of the journal.