**Prof. dr. habil. ADRIAN PALCU**

**LIST**

**of scientific published papers**

1. **PhD thesis**

**Adrian Palcu** – CONTRIBUTIONS TO THE GENERALIZATION OF THE STANDARD MODEL (scientific advisor – Prof.univ.dr. Ion I. Cotăescu)

1. **Books published in Romanian**
	1. **Adrian Palcu**, Modele gauge 3-4-1, Editura Universității „Aurel Vlaicu” din Arad (2016), ISBN: 978- 973-752-763-9.
	2. **Adrian Palcu**, Modelul Standard. Fundamente teoretice, Editura Universității „Aurel Vlaicu” din Arad (2015), ISBN: 978-973-752-745-5.
	3. **Adrian Palcu**, Grupuri Lie. Algebre Lie. Aplicații în fizica particulelor, Editura Universității „Aurel Vlaicu” din Arad (2015), ISBN: 978-973-752-741-7.
	4. Ion I. Cotăescu și **Adrian Palcu**, Cuantificarea a doua, Editura Universității „Aurel Vlaicu” din Arad (2016), ISBN: 978-973-752-757-8.
	5. Ion I. Cotăescu și **Adrian Palcu**, Fundamentele teoretice ale mecanicii cuantice, Editura Universității „Aurel Vlaicu” din Arad (2016), ISBN: 978-973-752-758-5.
	6. Ion I. Cotăescu și **Adrian Palcu**, Probleme de mecanică cuantică cu soluții exacte, Editura Universității „Aurel Vlaicu” din Arad (2016), ISBN: 978-973-752-729-5.
	7. Ion. I Cotăescu și **Adrian Palcu**, Metode de perturbații în mecanica cuantică, Editura Universității „Aurel Vlaicu” din Arad (2016), ISBN: 978-973-752-759-2.
2. **ISI papers**

1. Papers published in **ISI indexed** journals
	1. **A. Palcu**: ON TRILINEAR TERMS IN THE SCALAR POTENTIAL OF 3-3-1 GAUGE MODELS, Modern Physics Letters*A* **35** (2020), 2050083, World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	2. **A. Palcu**: IMPLEMENTING INVERSE SEESAW MECHANISM IN SU(3) x SU(4) x U(1) GAUGE MODELS, *International Journal of Theoretical Physics* **56**, pp. 403 - 414 (2017). Springer (Print ISSN: 0020-7748, Online ISSN: 1572-9575).
	3. **A. Palcu**: A STRAIGHTFORWARD REALISATION OF THE QUASI-INVERSE SEESAW MECHANISM AT TEV SCALE, *Romanian Reports in Physics* **68**, pp. 128 - 137 (2016). Publishing House of Romanian Academy (Online ISSN: 1841 – 8759).
	4. **A. Palcu**: REVISITING THE HIGGS SECTOR OF A 3-3-1 MODEL IN THE LIGHT OF 126 GeV SIGNAL AT THE LHC, *Progress of Theoretical and Experimental Physics* **2013**, 0903B03, pp. 1 - 20 (2013). Oxford University Press (Online ISSN: 2050 – 2911).
	5. **A. Palcu**: POSSIBLE HIGGS BOSON DECAYS IN A 3-3-1 GAUGE MODEL, *Romanian Reports in Physics* **65**, pp. 363 - 373 (2013). Publishing House of Romanian Academy (Online ISSN: 1841 – 8759).
	6. **A. Palcu**: DIMENSION-FIVE EFFECTIVE OPERATORS IN ELECTRO-WEAK SU(4) x U(1) GAUGE MODELS, *Physical Review D* **85**, 113010 (2012). American Physical Society.
	7. **A.** P**alcu**, S. Nădăban, A. Şandru: SOME REMARKS ON THE BOSON MASS SPECTRUM IN A 3-3-1 GAUGE MODEL – *Romanian Journal of Physics* **56**, pp. 673 – 681 (2011), Publishing House of Romanian Academy (ISSN: 1221 – 146X).
	8. **A. Palcu**: NEUTRINO MASSES WITH A SUITABLE PARAMETRIZATION IN THE PPF 3-3-1 GAUGE MODEL – *Romanian Journal of Physics* **55**, pp. 285 – 295 (2010), Publishing House of Romanian Academy (ISSN: 1221 – 146X).
	9. **A. Palcu**: CANONICAL SEESAW MECHANISM IN ELECTRO-WEAK SU(4) x U(1) MODELS – *Modern Physics Letters A* **24**, pp. 2589 – 2600 (2009), World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	10. **A. Palcu**: ELECTRO-WEAK SU(4) x U(1) MODELS WITHOUT EXOTIC ELECTRIC CHARGES – *International Journal of Modern Physics A* **24**, pp. 4923 – 4938 (2009), World Scientific (Print ISSN: 0217 – 751X, Online ISSN: 1793 – 656X)
	11. **A. Palcu**: NEUTRAL CURRENTS IN SU(4) x U(1) MODEL WITH EXOTIC ELECTRIC CHARGES – *Modern Physics Letters A* **24**, pp. 2175 - 2180 (2009), World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	12. **A. Palcu**: BOSON MASS SPECTRUM IN SU(4) x U(1) MODEL WITH EXOTIC ELECTRIC CHARGES – *Modern Physics Letters A* **24**, pp. 1731 - 1742 (2009), World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 - 6632).
	13. **A. Palcu**: THE ELECTRIC CHARGE ASSIGNMENT IN SU(4) x U(1) GAUGE MODELS – *Modern Physics Letters A* **24**, pp. 1247 - 1255 (2009), World Scientific. (Print ISSN: 0217 – 7323, Online ISSN: 1793 - 6632).
	14. Ion I. Cotăescu and **A. Palcu**: [CHARGES AND MASS SPECTRUM IN THE PISANO-PLEITEZ-FRAMPTON 3-3-1 GAUGE MDOEL](http://inspirehep.net/record/780979) – *Modern Physics Letters**A* **23** (2008), pp. 1011-1030, World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	15. **A. Palcu**: [CHARGED AND NEUTRAL CURRENTS IN A 3-3-1 MODEL WITH RIGHT-HANDED NEUTRINOS](http://inspirehep.net/record/776571) – *Modern Physics Letters**A* **23** (2008), pp. 387-399, World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	16. **A. Palcu**: [THE EXACT EIGENSTATES OF THE NEUTRINO MATRIX WITHOUT CP-PHASE VIOLATION](http://inspirehep.net/record/743877) – *Modern Physics Letters**A* **22** (2007), pp. 1459-1468, World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	17. **A. Palcu**: [CONSERVING THE LEPTON NUMBER L(e) - L(mu) - L(tau) IN THE EXACT SOLUTION OF A 3-3-1 GAUGE MODEL WITH RIGHT-HANDED NEUTRINOS](http://inspirehep.net/record/742004) – *Modern Physics Letters**A* **22** (2007), pp. 939-948, , World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	18. **A. Palcu**: [IMPLEMENTING CANONICAL SEESAW MECHANISM IN THE EXACT SOLUTION OF A 3-3-1 GAUGE MDOEL WITHOUT ELXOTIC ELECTRIC CHARGES](http://inspirehep.net/record/716927) – *Modern Physics Letters**A* **21** (2006), pp. 2591-2598, , World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	19. **A. Palcu**: [NEUTRINO MASS SQUARED DIFFERENCES IN THE EXACT SOLUTION OF A 3-3-1 GAUGE MODEL WITHOUT EXOTIC ELECTRIC CHARGES](http://inspirehep.net/record/716597) – *Modern Physics Letters**A* **21** (2006), pp. 2027-2042, , World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).
	20. **A. Palcu**: [NEUTRINO MASS AS A CONSEQUENCE OF THE EXACT SOLUTION OF 3-3-1 GAUGE MODELS WITHOUT EXOTIC ELECTRIC CHARGES](http://inspirehep.net/record/708313) – *Modern Physics Letters**A* **21** (2006), pp. 1203-1218, , World Scientific (Print ISSN: 0217 – 7323, Online ISSN: 1793 – 6632).

1. Papers published in **ISI indexed** proceedings

* 1. **A. Palcu**: SPONTANEOUS SYMMETRY BREAKING IN 3-3-1 GAUGE MODELS WITHOUT EXOTIC ELECTRIC CHARGES, AIP Conference Proceedings, **2218** (2020), 050002 pp.1-6, American Institute of Physics (Print ISBN: 978-07354-1974-2). –ISI Proceedings
	2. **A. Palcu**: THE HIGGS SECTOR OF A 3-4-1 GAUGE MODEL, AIP Conference Proceedings, **1916** (2017), 020007 pp.1-5 (2017), American Institute of Physics (Print ISBN: 978-0-7354-1608-6) – ISI Proceedings
	3. **A. Palcu**: NEUTRINO MASSES IN SU(4)xU(1) GAUGE MODELS – Proceedings of the Physics Conference TIM-12, pp.28-32 (2013), American Institute of Physics (Print ISBN: 987-0-7354-0668-1, ISSN: 0094-243X). – ISI Proceedings
	4. **A. Palcu**: ON THE GLOBAL SYMMETRY L(e)-L(μ)-L(τ) IN A 3-3-1 GAUGE MODEL WITH RIGHT- HANDED NEUTRINOS – Proceedings of the Physics Conference TIM-08, pp. 45 – 50 (2009), American Institute of Physics (Print ISBN: 978-0-7354-0668-1, ISSN: 0094-243X). – ISI Proceedings
1. Papers published in **BDI** Proceedings
2. S. Nădăban, **A. Palcu**, M. Tomescu: „FUZZY METRIZABILITY OF TOPOLOGICAL VECTOR SPACES” International Symposium RESEARCH AND EDUCATION IN INOVATION ERA 4th edition – organized by „Aurel Vlaicu“ University Arad, 8 – 9 November 2012).
3. **A. Palcu**, S. Nădăban, A. Șandru, M. Tomescu: „IS THE GLOBAL SYMMETRY L(e)-L(μ)-L(τ) SUITABLE FOR THE NEUTRINO SECTOR IN GAUGE MODELS?” International Symposium RESEARCH AND EDUCATION IN INOVATION ERA 4th edition – organized by „Aurel Vlaicu“ University Arad, 8 – 9 November 2012).
4. **A. Palcu**, S. Nădăban, A. Șandru: „SU(4) - A SUITABLE CANDIDATE FOR THE EXTENSION OF THE STANDARD MODEL“ (International Symposium RESEARCH AND EDUCATION IN INOVATION ERA 3rd edition – organized by „Aurel Vlaicu“ University Arad, 10 – 12 November 2010).
5. A. Șandru, **A. Palcu**, S. Nădăban: „DENOISING TECHNIQUES IN TIME-SERIES FORECASTING WITH EXEMPLE“ (International Symposium RESEARCH AND EDUCATION IN INOVATION ERA 3rd edition – organized by „Aurel Vlaicu“ University Arad, 10 – 12 November 2010).
6. S. Nădăban, M. Tomescu, **A. Palcu**: „ON FUZZY BANACH SPACES“ (International Symposium RESEARCH AND EDUCATION IN INOVATION ERA 3rd edition – organized by „Aurel Vlaicu“ University Arad, 10 – 12 November 2010).
7. M. Tomescu, S. Nădăban, **A. Palcu**: „INTELLIGENT CONTROL SYSTEMS“ (International Symposium RESEARCH AND EDUCATION IN INOVATION ERA 3rd edition – organized by „Aurel Vlaicu“ University Arad, 10 – 12 November 2010).