

**H-index = 21**  
of all scientific papers of Prof. Dr.Sc. Emil Nissimov  
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## References

- [1] ANOMALIES OF QUANTUM CURRENTS IN EXACTLY SOLVABLE MODELS. *Theor. Math. Phys.* **29** (1976) 161-170.  
By P.P Kulish, E.R. Nissimov (Steklov Math. Inst., Leningrad)  
[number of citations – 35]
- [2] CONSERVATION LAWS IN THE QUANTUM THEORY  $(\cos\Phi - 1)_2$  AND IN THE MASSIVE THIRRING MODEL. *Lett. to J. E. T. P.* **24** (1976) 247-250.  
By P.P Kulish, E.R. Nissimov (Steklov Math Inst., Leningrad)  
[number of citations – 49]
- [3] INFINITE SET OF CONSERVATION LAWS OF THE QUANTUM CHIRAL FIELD IN TWO-DIMENSIONAL SPACE-TIME. *Steklov Math. Inst. report LOMI E-1-1978.* 29pp.  
By I.Ya. Arefeva, P.P. Kulish, E.R. Nissimov, S.J. Pacheva (Steklov Math. Inst., Leningrad)  
[number of citations – 26]
- [4] BPHZL RENORMALIZATION OF  $1/N$  EXPANSION AND CRITICAL BEHAVIOR OF THE THREE-DIMENSIONAL CHIRAL FIELD. *Commun. Math. Phys.* **71** (1980) 213.  
By I.Ya. Arefeva, E.R. Nissimov, S.J. Pacheva (Steklov Math. Inst., Leningrad)  
[number of citations – 55]
- [5] CHIRAL ANOMALIES IN THE STOCHASTIC QUANTIZATION SCHEME. *Lett. Math. Phys.* **11** (1986) 209-216.  
By E.Sh. Egorian (Yerevan Phys. Inst.), E.R. Nissimov, S.J. Pacheva (Sofia, Inst. Nucl. Res.)  
[number of citations – 29]
- [6] CONSERVED NOETHER CURRENTS IN STOCHASTIC QUANTIZATION. *Phys. Lett.* **174B** (1986) 324.  
By R. Kirschner, E.R. Nissimov, S.J. Pacheva (CERN)  
[number of citations – 22]
- [7] QUANTIZATION OF THE  $N = 1, 2$  SUPERPARTICLE WITH IRREDUCIBLE CONSTRAINTS. *Phys. Lett.* **189B** (1987) 57.  
By E.R. Nissimov, S.J. Pacheva (CERN)  
[number of citations – 45]

- [8] COVARIANT FIRST AND SECOND QUANTIZATION OF THE  $N = 2$   $D = 10$  BRINK-SCHWARZ SUPERPARTICLE. *Nucl. Phys.* **B296** (1988) 462.  
By E. Nissimov, S. Pacheva, S. Solomon (Weizmann Inst.)  
[number of citations – 98]
- [9] COVARIANT CANONICAL QUANTIZATION OF THE GREEN-SCHWARZ SUPERSTRING. *Nucl. Phys.* **B297** (1988) 349.  
By E. Nissimov, S. Pacheva, S. Solomon (Weizmann Inst.)  
[number of citations – 117]
- [10] COVARIANT UNCONSTRAINED SUPERFIELD ACTION FOR THE LINEARIZED  $D = 10$  SUPER YANG-MILLS THEORY. *Nucl. Phys.* **B299** (1988) 183.  
By E. Nissimov, S. Pacheva, S. Solomon (Weizmann Inst.)  
[number of citations – 54]
- [11] MANIFESTLY SUPERPOINCARÉ COVARIANT QUANTIZATION OF THE GREEN-SCHWARZ SUPERSTRING. *Phys. Lett.* **202B** (1988) 325-332.  
By E.R. Nissimov (ICTP, Trieste), S.J. Pacheva (Sofia, Inst. Nucl. Res.)  
[number of citations – 29]
- [12] OFF-SHELL SUPERSPACE  $D = 10$  SUPER YANG-MILLS FROM COVARIANTLY QUANTIZED GREEN-SCHWARZ SUPERSTRING. *Nucl. Phys.* **B317** (1989) 344.  
By E. Nissimov, S. Pacheva, S. Solomon (Weizmann Inst.)  
[number of citations – 45]
- [13] THE RELATION BETWEEN OPERATOR AND PATH INTEGRAL COVARIANT QUANTIZATIONS OF THE GREEN-SCHWARZ SUPERSTRING. *Phys. Lett.* **228B** (1989) 181-187.  
By E. Nissimov, S. Pacheva, S. Solomon (Weizmann Inst.)  
[number of citations – 29]
- [14] SUPERSPACE ACTIONS ON COADJOINT ORBITS OF GRADED INFINITE DIMENSIONAL GROUPS. *Phys. Lett.* **234B** (1990) 307-314.  
By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (Weizmann Inst.), S. Solomon (Hebrew U. and Weizmann Inst.)  
[number of citations – 32]
- [15] SYMPLECTIC ACTIONS ON COADJOINT ORBITS. *Phys. Lett.* **240B** (1990) 127.  
By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (Sofia, Inst.Nucl.Res.), A.H. Zimerman (Illinois U., Chicago)  
[number of citations – 32]

- [16] *R*-MATRIX FORMULATION OF *KP* HIERARCHIES AND THEIR GAUGE EQUIVALENCE. *Phys. Lett.* **294B** (1992) 167 (*hep-th/9209006*).  
By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (CERN, Geneva and Ben-Gurion Univ., Beer-Sheva), I. Vaysburd (Hebrew Univ., Jerusalem)  
[number of citations – 21]
- [17] CONSTRUCTION OF *KP* HIERARCHIES IN TERMS OF FINITE NUMBER OF FIELDS AND THEIR ABELIANIZATION. *Phys. Lett.* **314B** (1993) 41 (*hep-th/9306035*).  
By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (Ben-Gurion Univ., Beer-Sheva)  
[number of citations – 24]
- [18] DARBOUX-BÄCKLUND SOLUTIONS OF  $SL(p, q)$  *KP*-KdV HIERARCHIES, CONSTRAINED GENERALIZED TODA LATTICES, AND TWO-MATRIX STRING MODEL. *Phys. Lett.* **201A** (1995) 293 (*hep-th/9501018*).  
By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (Ben-Gurion Univ., Beer-Sheva), 1995.  
[number of citations – 25]
- [19] VOLUME-PRESERVING DIFFEOMORPHISMS' VERSUS LOCAL GAUGE SYMMETRY. *Phys. Lett.* **360B** (1995) 57 (*hep-th/9505128*).  
By E.I. Guendelman, E. Nissimov and S. Pacheva (Ben-Gurion Univ., Beer-Sheva), 1995.  
[number of citations – 27]
- [20] VIRASORO SYMMETRY OF CONSTRAINED *KP* HIERARCHIES. *Phys. Lett.* **228A** (1997) 164 (*hep-th/9602068*).  
By H. Aratyn (Illinois U., Chicago), E. Nissimov (Inst. Nucl. Res., Sofia), S. Pacheva (Ben-Gurion Univ., Beer-Sheva; Inst. Nucl. Res., Sofia), 1996.  
[number of citations – 38]
- [21] CONSTRAINED *KP* HIERARCHIES: ADDITIONAL SYMMETRIES, DARBOUX-BÄCKLUND SOLUTIONS AND RELATIONS TO MULTI-MATRIX MODELS. *Int. J. Mod. Phys.* **A12** (1997) 1265–1340 (*hep-th/9607234*).  
By H. Aratyn (Illinois U., Chicago), E. Nissimov (Inst. Nucl. Res., Sofia), S. Pacheva (Ben-Gurion Univ., Beer-Sheva; Inst. Nucl. Res., Sofia)  
[number of citations – 55]
- [22] METHOD OF SQUARED EIGENFUNCTION POTENTIALS IN INTEGRABLE HIERARCHIES OF *KP* TYPE. *Commun. Math. Phys.* **193** (1998) 493–525 (*solv-int/9701017*).  
By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (Ben-Gurion Univ., Beer-Sheva; Inst. Nucl. Res., Sofia)  
[number of citations – 53]
- [23] SUPERSYMMETRIC *KP* HIERARCHY: “GHOST” SYMMETRY STRUCTURE, REDUCTIONS AND DARBOUX-BÄCKLUND SOLUTIONS. *J. Math. Phys.* **40** (1999) 2922 (*solv-int/9801021*).

By H. Aratyn (Illinois U., Chicago), E. Nissimov, S. Pacheva (Ben-Gurion Univ., Beer-Sheva; Inst. Nucl. Res., Sofia), 1998.

[number of citations – 44]

- [24] *Emergent Cosmology, Inflation and Dark Energy, General Relativity and Gravitation* **47** (2015) art.10 ([arxiv:1408.5344v4](#) [gr-qc]).

By E.I. Guendelman (Ben-Gurion Univ., Beer-Sheva), R. Herrera, P. Labrana, E. Nissimov and S. Pacheva (Inst. Nucl. Res., Sofia), 2014.

[number of citations – 27]

- [25] *Unified Dark Energy and Dust Dark Matter Dual to Quadratic Purely Kinetic K-Essence, EuroPhys. Journ.* **C76**:90 (2016) ([arxiv:1511.07071](#) [gr-qc]).

By E.I. Guendelman (Ben-Gurion Univ., Beer-Sheva), E. Nissimov and S. Pacheva (Inst. Nucl. Res., Sofia), 2015.

[number of citations – 34]

- [26] *Black holes, gravitational waves and fundamental physics: a roadmap, Classical and Quantum Gravity* **36** (2019) 143001 ([arxiv:1806.05195](#) [gr-qc]).

By Leor Barack, Vitor Cardoso, Samaya Nissanke, Thomas P. Sotiriou, . . . , E. Guendelman, . . . , E. Nissimov (Inst. Nucl. Res., Sofia), . . . , 2018.

[number of citations – 621]