

# CURRICULUM VITAE

## IDENTITATE

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## STUDII

- **Licenta:**
  - 1992-1997, Universitatea din Craiova, Facultatea de Stiinte, sectia Fizica, specializarea Fizica Teoretica
  - 1995-1999, Universitatea din Craiova, Facultatea de Matematica si Informatica, specializarea Matematica
- **Masterat:**
  - 1997-1998, Universitatea din Craiova, Facultatea de Stiinte, sectia Fizica, Studii Aprofundate: Teoria Cuantica a Campului
  - 2013-2015, Universitatea de Vest din Timisoara, Facultatea de Matematica si Informatica, programul de masterat: Modelari Analitice si Geometrice ale Sistemelor
- **Doctorat:** 1998-2002, Universitatea din Craiova, domeniul fundamental Stiinte Exacte, domeniul Fizica, specializarea Fizica Teoretica  
Titlul tezei: *Abordari BRST ireductibile ale teoriilor reductibile*  
Conducator de doctorat: Prof. univ. dr. Constantin Bizdadea
- **Abilitare:** 2016, Universitatea din Craiova, domeniul de studii universitare de doctorat Fizica  
Titlul tezei: *O abordare coomologica a interactiilor in modele corelate cu gravitatie*

## EXPERIENTA PROFESIONALA

- Februarie 2001 – Martie 2005, asistent universitar, Facultatea de Fizica, Universitatea din Craiova
- Martie 2005 – Octombrie 2008, lector universitar, Facultatea de Fizica, Universitatea din Craiova
- Octombrie 2008 – Martie 2017, conferentiar universitar, Departamentul de Fizica, Universitatea din Craiova
- Martie 2017 – Prezent, profesor universitar, Departamentul de Fizica, Universitatea din Craiova

## ACTIVITATI DE CERCETARE STIINTIFICA

- **Domenii de cercetare:** Fizica Teoretica, Fizica Matematica
- **Directii de cercetare**
  - Sisteme dinamice cu constrangeri
  - Teoria cuantica a campului

- Cuantificarea sistemelor cu constrangeri
- Coomologia BRST locala – constructia interactiilor consistente in teorii gauge
- Structuri de tip Jacobi
- Perechi duale

## LISTA DE PUBLICATII

### In reviste de specialitate cotate ISI

- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Irreducible Hamiltonian BRST approach to topologically coupled Abelian forms*, [Physica Scripta 60 \(1999\) 120-130](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Massive Yang-Mills theory with no Dirac bracket*, [Nuovo Cimento A112 \(1999\) 1033-1039](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Irreducible Hamiltonian BRST symmetry for reducible first-class systems*, [International Journal of Modern Physics A15 \(2000\) 3001-3017](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Freedman-Townsend vertex from Hamiltonian BRST cohomology*, [Classical and Quantum Gravity 17 \(2000\) 2007-2016](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Irreducible Hamiltonian BRST-anti-BRST symmetry for reducible systems*, [Journal of Physics A: Mathematical and General 33 \(2000\) 6901-6923](#)
- C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, *Cohomological derivation of the couplings between an Abelian gauge field and matter fields*, [Annalen der Physik 10 \(2001\) 415-427](#)
- C. Bizdadea, E. M. Cioroianu, M. T. Miauta, I. Negru, S. O. Saliu, *Lagrangian cohomological couplings among vector fields and matter fields*, [Annalen der Physik 10 \(2001\) 921-933](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Irreducible Freedman-Townsend vertex and Hamiltonian BRST cohomology*, [Annalen der Physik 11 \(2002\) 151-161](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Hamiltonian cohomological derivation of four-dimensional nonlinear gauge theories*, [International Journal of Modern Physics A17 \(2002\) 2191-2210](#)
- C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, *Lagrangian interactions within a special class of covariant mixed-symmetry type tensor gauge fields*, [The European Physical Journal C27 \(2003\) 457-465](#)
- C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Hamiltonian BRST deformation of a class of n-dimensional BF-type theories*, [Journal of High Energy Physics JHEP 0301 \(2003\) 049](#)
- C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu, *Interactions of a single massless tensor field with the mixed symmetry (3,1). No-go results*, [Journal of High Energy Physics JHEP 0310 \(2003\) 019](#)
- C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Four-dimensional couplings among BF and matter theories from BRST cohomology*, [Annalen der Physik 12 \(2003\) 543-571](#)

- E. M. Babalic, C. C. Ciobirca, E. M. Cioroianu, I. Negru, S. C. Sararu, *Two-dimensional interactions in a class of tensor gauge fields from local BRST cohomology*, [Acta Physica Polonica B34 \(2003\) 2673-2682](#)
- C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Interactions of a massless tensor field with the mixed symmetry of the Riemann tensor. No-go results*, [The European Physical Journal C36 \(2004\) 253-270](#)
- C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, *Cohomological BRST aspects of the massless tensor field  $(k,k)$* , [International Journal of Modern Physics A19 \(2004\) 4579-4619](#)
- E. M. Cioroianu, S. C. Sararu, *Two-dimensional interactions between a BF-type theory and a collection of vector fields*, [International Journal of Modern Physics A19, \(2004\) 4101-4125](#)
- C. Bizdadea, E. M. Cioroianu, A. C. Lungu, S. O. Saliu, *No multi-graviton theories in the presence of a Dirac field*, [Journal of High Energy Physics JHEP 0502 \(2005\) 016](#)
- E. M. Cioroianu, S. C. Sararu, *Self-interactions in a topological BF-type model in  $D=5$* , [Journal of High Energy Physics 0507 \(2005\) 056](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Couplings of a collection of BF models to matter theories*, [The European Physical Journal C41 \(2005\) 401-420](#)
- C. Bizdadea, E. M. Cioroianu, D. Cornea, S. O. Saliu, S. C. Sararu, *No interactions for a collections of spin-two fields intermediated by a massive Rarita-Schwinger field*, [The European Physical Journal C48 \(2006\) 265-289](#)
- C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, *Interactions between a massless tensor field with the mixed symmetry of the Riemann tensor and a massless vector field*, [Journal of Physics A: Mathematical and General 39 \(2006\) 10549-10564](#)
- C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu, *On the generalized Freedman-Townsend model*, [Journal of High Energy Physics JHEP 0610 \(2006\) 004](#)
- C. Bizdadea, E. M. Cioroianu, A. C. Lungu, *No interactions for a collection of Weyl gravitons intermediated by a scalar field*, [International Journal of Modern Physics A21 \(2006\) 4083-4126](#)
- C. Bizdadea, E. M. Cioroianu, A. C. Lungu, S. C. Sararu, *No cross-interactions between the Weyl graviton and the massless Rarita-Schwinger field*, [Annalen der Physik 15 \(2006\) 416-433](#)
- E. M. Cioroianu, S. C. Sararu, *PT-Symmetry breaking Hamiltonian interactions in BF models*, [International Journal of Modern Physics A21 \(2006\) 2573-2599](#)
- C. Bizdadea, E. M. Cioroianu, S. C. Sararu, *Couplings between a collection of BF models and a set of three-form gauge fields*, [International Journal of Modern Physics A21 \(2006\) 6477-6490](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, O. Balus, *An irreducible approach to second-order reducible second-class constraints*, [Journal of Physics A: Mathematical and Theoretical 40 \(2007\) 14537-14554](#)
- C. Bizdadea, E. M. Cioroianu, D. Cornea, E. Diaconu, S. O. Saliu, S. C. Sararu, *Interactions for a collection of spin-two fields intermediated by a massless p-form*, [Nuclear Physics B794 \(2008\) 442-494](#)

- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, M. Iordache, *Four-dimensional couplings among BF and massless Rarita-Schwinger theories: a BRST cohomological approach*, [The European Physical Journal C58 \(2008\) 123-149](#)
- E. M. Cioroianu, E. Diaconu, S. C. Sararu, *On the uniqueness of  $D = 11$  interactions among a graviton, a massless gravitino and a three-form I: Pauli Fierz and three-form*, [International Journal of Modern Physics A23 \(2008\) 4721-4755](#)
- E. M. Cioroianu, E. Diaconu, S. C. Sararu, *On the uniqueness of  $D = 11$  interactions among a graviton, a massless gravitino and a three-form II: Three-form and gravitini*, [International Journal of Modern Physics A23 \(2008\) 4841-4859](#)
- E. M. Cioroianu, E. Diaconu, S. C. Sararu, *On the uniqueness of  $D = 11$  interactions among a graviton, a massless gravitino and a three-form III: Graviton and gravitini*, [International Journal of Modern Physics A23 \(2008\) 4861-4875](#)
- E. M. Cioroianu, E. Diaconu, S. C. Sararu, *On the uniqueness of  $D = 11$  interactions among a graviton, a massless gravitino and a three-form IV: Putting things together*, [International Journal of Modern Physics A23 \(2008\) 4877-4923](#)
- C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu, O Balus, *Reducible second-class constraints of order  $L$ : An irreducible approach*, [Nuclear Physics B812 \(2009\) 12-45](#)
- C. Bizdadea, E. M. Cioroianu, A. Danehkar, M. Iordache, S. O. Saliu, S. C. Sararu, *Consistent interactions of dual linearized gravity in  $D=5$ : couplings with a topological BF model*, [The European Physical Journal C63 \(2009\) 491-519](#)
- E. M. Cioroianu, E. Diaconu, S. C. Sararu, *On the consistent interactions in  $D = 11$  among a graviton, a massless gravitino and a three-form*, [Fortschritte der Physik-Progress of Physics 57 \(2009\) 535-541](#)
- E. M. Cioroianu, S. C. Sararu, O. Balus, *First-class approaches to massive 2-forms*, [International Journal of Modern Physics A25 \(2010\) 185-198](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, E. M. Babalic, *Dual linearized gravity in  $D=6$  coupled to a purely spin-two field of mixed symmetry  $(2,2)$* , [Fortschritte der Physik 58 \(2010\) 341-363](#)
- C. Bizdadea, E. M. Cioroianu, S. O. Saliu, E. M. Babalic, *Yes-go cross-couplings in collections of tensor fields with mixed symmetries of the type  $(3,1)$  and  $(2,2)$* , [International Journal of Modern Physics A25 \(2010\) 1211-1238](#)
- E. M. Cioroianu, *Note on the dynamics of a pseudo-classical spinning particle*, [Modern Physics Letters A26 \(2011\) 589-601](#)
- E. M. Cioroianu, *Many faces of the massless tensor gauge field of degree two*, [International Journal of Modern Physics A27 \(2012\) art. no 1250189](#)
- C. Bizdadea, E. M. Cioroianu, S. C. Sararu, O. Balus, *Irreducible analysis of reducible second-class constraints: the example of gauge-fixed three-and two-forms with Stueckelberg coupling*, [Romanian Reports in Physics 62 \(2010\) 3-17](#)
- E. M. Cioroianu, *Tensor gauge fields of degree three*, [Romanian Journal of Physics 58 \(2013\) 529-542](#)
- C. Bizdadea, M. M. Barcan, E. M. Cioroianu, M. T. Miauta, S. O. Saliu, *Another relationship between first- and second-order systems*, [Romanian Journal of Physics 58 \(2013\) 428-433](#)

- C. Bizdadea, E. M. Cioroianu, M. T. Miauta, S. O. Saliu, S. C. Sararu, L. Stanciu-Oprean, *Towards a full classification of consistent interaction vertices in topological BF theories*, [Romanian Journal of Physics 58 \(2013\) 434-445](#)
- E. M. Cioroianu, *Dynamical aspects of a massless tensor gauge field of degree  $(k+1)$* , [Romanian Journal of Physics 61 \(2016\) 37-51](#)
- E. M. Cioroianu, *Rich gauge structures from a unitary approach of some massless gauge fields of spins one and two*, [International Journal of Modern Physics A32 \(2017\) art. No 1750044](#)
- E.M. Cioroianu, C. Vizman, *Jacobi structures with background*, [International Journal of Geometric Methods in Modern Physics 17 \(2020\) 2050063](#)
- E. M. Cioroianu, C. Vizman, *A linear algebraic setting for Jacobi structures*, [Journal of Geometry and Physics 159 \(2021\) 103904](#)

**In jurnalele de specialitate ale Academiei Romane/ jurnale necotate ISI din strainatate si indexate in baze de date internationale**

1. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Irreducible Hamiltonian BRST-anti-BRST formalism for off-shell reducible theories*, [Romanian Journal of Physics 45 \(2000\) 519-529](#)
2. C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *BRST cohomological results on the massless tensor field with the mixed symmetry of the Riemann tensor*, [International Journal of Geometric Methods in Modern Physics 1 \(2004\) 335-366](#)
3. E. M. Cioroianu, S.C. Sararu, *Consistent interactions between BF and massive Dirac fields. A cohomological approach*, [Romanian Reports in Physics 57 \(2005\) 189-203](#)
4. C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, *Cohomological aspects of massless, free tensors with the mixed symmetry  $(k,k)$* , [Romanian Journal of Physics 50 \(2005\) 269-278](#)
5. C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *BF models*, [Romanian Journal of Physics 50 \(2005\) 241-248](#)
6. C. Bizdadea, O. Balus, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Irreducible approach to L-order reducible second-class theories*, [Romanian Journal of Physics 53 \(2008\) 1023-1031](#)
7. E. M. Cioroianu, E. Diaconu, S. C. Sararu, *On the cohomological derivation of  $D=11$ ,  $N=1$  SUGRA*, [Romanian Journal of Physics 53 \(2008\) 1059-1068](#)

**In volumele unor manifestari stiintifice internationale**

1. C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu, *Interactions in theories with mixed-symmetry tensor fields*, [Proceedings of the "4<sup>th</sup> International School and Workshop on Quantum Field Theory and Hamiltonian Systems"](#), 16-21 October 2004, Calimanesti, Romania, 90-110
2. C. Bizdadea, C. C. Ciobirca, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Interactions in BF models*, [Proceedings of the "4<sup>th</sup> International School and Workshop on Quantum Field Theory and Hamiltonian Systems"](#), 16-21 October 2004, Calimanesti, Romania, 184-196
3. E. M. Cioroianu, S. C. Sararu, *Lagrangian interactions in a topological BF-type model in  $D=5$  from a cohomological approach*, [Proceedings of the "4<sup>th</sup> School and Workshop on Quantum Field Theory & Hamiltonian Systems"](#), 16-21 October 16-21, 2004, Calimanesti, Romania, 197-205

4. C. Bizdadea, E. M. Cioroianu, D. Cornea, A. C. Lungu, S. O. Saliu, S. C. Sararu, *Consistent interactions between the spin-two field and fermionic fields*, [Proceedings of the "5<sup>th</sup> International School and Workshop on Quantum Field Theory and Hamiltonian Systems"](#), 20-26 May 2006, Calimanesti, Romania, 168-193
5. C. Bizdadea, E. M. Cioroianu, S. C. Sararu, *PT-invariant couplings between a collection of BF models and a system of 3-form gauge fields*, [Proceedings of the "5<sup>th</sup> International School and Workshop on Quantum Field Theory and Hamiltonian Systems"](#), 20-26 May 2006, Calimanesti, Romania, 224-232
6. E. M. Cioroianu, E. Diaconu, S. C. Sararu, *No interactions for a collection of Weyl gravitons intermediated by a one-form gauge field*, [Proceedings of the "5<sup>th</sup> School and Workshop on Quantum Field Theory & Hamiltonian Systems"](#), 20-26 May 2006, Calimanesti, Romania, 233-237
7. E. M. Cioroianu, E. Diaconu, S. C. Sararu, *Consistent couplings between an Abelian three-form and a non-massive Rarita-Schwinger field in  $D=11$* , [Proceedings of the "5<sup>th</sup> School and Workshop on Quantum Field Theory & Hamiltonian Systems"](#), 20-26 May 2006, Calimanesti, Romania, 257-262
8. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Topological BF models in interaction with two-form gauge fields. The generalized Freedman-Townsend model*, Lecture given within the program "Poisson Sigma Models, Lie Algebroids, Deformations, and Higher Analogues", organizers H. Bursztyn, H. Grosse and T. Strobl, 1 August – 21 September 2007, Erwin Schrodinger Institute, Vienna, Austria
9. C. Bizdadea, E. M. Cioroianu, D. Cornea, E. Diaconu, S. O. Saliu, S. C. Sararu, *No cross-couplings among different spin-two fields intermediated by a massless p-form*, [Proceedings of the "6<sup>th</sup> International School and Workshop on Quantum Field Theory and Hamiltonian Systems"](#), 6-11 May 2008, Calimanesti, Romania, 151-165
10. C. Bizdadea, O. Balus, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Irreducible Dirac bracket for gauge-fixed four-forms*, [Proceedings of the "6<sup>th</sup> International School and Workshop on Quantum Field Theory and Hamiltonian Systems"](#), 6-11 May 2008, Calimanesti, Romania, 207-213
11. E. M. Cioroianu, I. Negru, S. C. Sararu, *Massless QCD-like theories*, [Proceedings of the "6<sup>th</sup> School and Workshop on Quantum Field Theory & Hamiltonian Systems"](#), 6-11 May 2008, Calimanesti, Romania, 199-206
12. E. M. Cioroianu, E. Diaconu, S. C. Sararu, *11-dimensional Supergravity as an interacting theory on Minkowski space*, [Proceedings of the "6<sup>th</sup> School and Workshop on Quantum Field Theory & Hamiltonian Systems"](#), 6-11 May 2008, Calimanesti, Romania, 219-229
13. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, M. Iordache, *Massless gravitino interactions mediated by a topological field model*, Proceedings of the "Physics Conference TIM-08", Timisoara, Romania, November 28-29, 2008, [AIP Conference Proceedings 1131 \(2009\), 23-28](#)
14. C. Bizdadea, E. M. Cioroianu, A. Danekar, M. Iordache, S. O. Saliu, S. C. Sararu, *BF models in dual formulations of linearized gravity*, Proceedings of the "Physics Conference TIM-08", Timisoara, Romania, November 28-29, 2008, [AIP Conference Proceedings 1131 \(2009\), 29-35](#)
15. C. Bizdadea, E. M. Cioroianu, I. Negru, S. O. Saliu, S. C. Sararu, *Interactions in theories with mixed symmetry tensor fields: Yes-go results*, Proceedings of the "Physics Conference

TIM-09", Timisoara, Romania, November 27-28, 2009, [AIP Conference Proceedings 1262 \(2010\) 3-12](#)

16. C. Bizdadea, [E. M. Cioroianu](#), M. T. Miauta, S. O. Saliu, S. C. Sararu, *Consistent interactions involving dual formulations of linearized gravity in terms of massless tensor fields with the mixed symmetry  $(k,1)$* , Proceedings of the "Physics Conference TIM-10", Timisoara, Romania, November 25-27, 2010, [AIP Conference Proceedings 1387 \(2011\) 78-85](#)
17. [E. M. Cioroianu](#), *Exotic interactions between Weyl gravitons and massless zero-charge spin-1/2 particles*, Proceedings of the "Physics Conference TIM-11", Timisoara, Romania, November 25-27, 2010, [AIP Conference Proceedings 1387 \(2011\) 59-65](#)
18. C. Bizdadea, [E. M. Cioroianu](#), I. Negru, S. O. Saliu, S. C. Sararu, M. Toma, *Linearized gravity and its dual formulations: Yes-go results on their consistent couplings*, [Proceedings of the "7<sup>th</sup> School and Workshop on Quantum Field Theory&Hamiltonian Systems"](#), 10-15 May, Calimanesti, Romania, 216-233
19. C. Bizdadea, [E. M. Cioroianu](#), I. Negru, S. C. Sararu, *Interactions between Weyl graviton and massless spin-3/2 particles. No-go results*, [Proceedings of the "7<sup>th</sup> School and Workshop on Quantum Field Theory&Hamiltonian Systems"](#), 10-15 May, Calimanesti, Romania, 280-288
20. C. Bizdadea, [E. M. Cioroianu](#), S. O. Saliu, S. C. Sararu, L. Stanciu-Oprean, *Topological BF models with maximal field spectra: Consistent self-interactions*, Proceedings of the "Physics Conference TIM-11", Timisoara, Romania, November 24-27, 2011, [AIP Conference Proceedings 1472 \(2012\) 3-11](#)
21. [E. M. Cioroianu](#), *Physical degrees of freedom in theories with massless tensor gauge fields of degree two*, Proceedings of the "Physics Conference TIM-11", Timisoara, Romania, November 24-27, 2011, [AIP Conference Proceedings 1472 \(2012\) 25-35](#)
22. C. Bizdadea, [E. M. Cioroianu](#), S. O. Saliu, S. C. Sararu, L. Stanciu-Oprean, *Consistent interaction vertices in arbitrary topological BF theories*, Proceedings of the "Physics Conference TIM-12", Timisoara, Romania, November 27-30, 2012, [AIP Conference Proceedings 1564 \(2013\) 69-77](#)
23. [E. M. Cioroianu](#), *First-order dynamics for massless tensor gauge fields of degree three*, Proceedings of the "Physics Conference TIM-12", Timisoara, Romania, November 27-30, 2012, [AIP Conference Proceedings 1564 \(2013\) 50-56](#)
24. [E. M. Cioroianu](#), *On the first-order formalisms for a massless tensor gauge field of degree  $(k+1)$* , Proceedings of the "Physics Conference TIM-14", Timisoara, Romania, November 20-22, 2014, [AIP Conference Proceedings 1694 \(2015\) 020003](#)
25. C. Bizdadea, [E. M. Cioroianu](#), S. O. Saliu, *Note on the BRST mass generation of a vector field. The case of couplings to  $N=4$  real scalars*, Proceedings of the "Physics Conference TIM15-16", Timisoara, Romania, May 26-28, 2016, [AIP Conference Proceedings 1796 \(2017\) 020003](#)
26. C. Bizdadea, [E. M. Cioroianu](#), S. O. Saliu, *Massive spin-one fields from couplings with five massless real scalars*, Proceedings of the "Physics Conference TIM-17", Timisoara, Romania, May 25-27, 2017, [AIP Conference Proceedings 1916 \(2017\) 020003](#)
27. C. Bizdadea, [E. M. Cioroianu](#), S. O. Saliu, *Vector Field Mass Generation in a Single  $D=4$  Topological BF Model*, Proceedings of the "Physics Conference TIM-18", Timisoara, Romania, May 24-26, 2018, [AIP Conference Proceedings 2071 \(2019\) 020009](#)

28. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Zeeman-like Effect in a Spontaneous Symmetry-Breaking Scheme*, Proceedings of the “Physics Conference TIM18”, Timisoara, Romania, May 24-26, 2018, [AIP Conference Proceedings 2071 \(2019\) 020006](#)
29. E. M. Cioroianu, *Contact Structures: From Standard to Line Bundle Approach*, Proceedings of the “Physics Conference TIM18”, Timisoara, Romania, May 24-26, 2018, [AIP Conference Proceedings 2071 \(2019\) 020006](#)
30. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Aspects of the spontaneous symmetry breaking in a  $SU(2) \times U(1)$ -gauge model involving six real scalar fields*, Proceedings of the “Physics Conference TIM-19”, Timisoara, Romania, May 19-31, 2019, [AIP Conference Proceedings 2218 \(2020\) 050006](#)
31. E. M. Cioroianu, *Locally Conformal Symplectic Structures: From Standard to Line Bundle Approach*, Proceedings of the “Physics Conference TIM-19”, Timisoara, Romania, May 19-31, 2019, [AIP Conference Proceedings 2218 \(2020\) 050007](#)

### Monografii, carti de specialitate pentru studenti

1. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, *Simetrii BRST ireductibile si reductibile*, Editura Universitaria, Craiova, 2002, ISBN 973-8043-206-6
2. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, S. C. Sararu, *Modele de tip BF in interactie*, Editura Universitaria, Craiova, 2007, ISBN 978-973-742-710-6
3. C. Bizdadea, E. M. Cioroianu, S. O. Saliu, C. C. Ciobirca, I. Negru, *Campuri tensoriale cu simetrii mixte*, Editura Universitaria, Craiova, 2008, ISBN 978-606-510-401-3
4. E. M. Cioroianu, S. C. Sararu, *Introducere in teoria gravitatiei*, Editura Universitaria, Craiova, 2008, ISBN 978-606-510-393-1
5. E. M. Cioroianu, *Mecanica cuantica*, Editura Universitaria, Craiova, 2015, ISBN 978-606-14-0948-8
6. C. Bizdadea, E. M. Cioroianu, I. Negru, *Mecanica analitica-Culegere de probleme*, Reprografia Universitatii din Craiova, 2000, 178 pp.
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### CONTRACTE DE CERCETARE

#### Granturi/contracte de cercetare obtinute prin competitie in calitate de director

1. *Cuplaje intre teoriile neliniare si sisteme de unu-, doi- si trei forme*, grant CNCSIS tip AT, contract: 33547/2003, cod CNCSIS: 302/2003
2. *Cuplaje in teorii topologice de tip BF in  $D=5$* , grant CNCSIS tip AT, contract: 33062/2004, cod CNCSIS: 35/2004
3. *Interactii consistente in teorii supersimetrice*, grant CNCSIS tip AT, contract: 27661/2005; GR 155/2006, cod CNCSIS: 24/2005

#### Participare in granturi/contracte de cercetare obtinute prin competitie

1. *Constituents, fundamental forces and symmetries of the universe*, contract tip FP6-Marie Curie Research Training Networks, contract/perioada: MRTN-CT-2004-005104/2004-2008, Responsabil de proiect: Prof. univ. dr. Constantin Bizdadea



2. *Metode de cuantificare in teoriile gauge*, grant CNCSIS tip A, contract: 4636/1999, cod CNCSIS: 83/1999, Director de proiect: Prof. univ. dr. Constantin Bizdadea
3. *Interactii Lagrangiene si Hamiltoniene in teoria particulelor elementare*, Grant CNCSIS tip A, contract: 35254/2001, cod CNCSIS: 140/2001, Director de proiect: Prof. univ. dr. Constantin Bizdadea
4. *Teorii de camp cu algebre gauge neliniare*, grant CNCSIS tip A, contract: 33451/2002, cod CNCSIS: 943/2002, Director de proiect: Prof. univ. dr. Constantin Bizdadea,
5. *Interactii in teorii cu tensori simetrici de rang doi*, grant CNCSIS tip A, contract: 33062/2004; 34677/2005; GR 155/2006, cod CNCSIS: 305/2004, Director de proiect: Prof. univ. dr. Constantin Bizdadea
6. *Cercetari avansate de teoria cuantica a campurilor si gravitatie*, contract de cercetare dezvoltare inovare, contract: CEx05-D11-49/2005, Responsabil de proiect: Prof. univ. dr. Constantin Bizdadea
7. *Interactii fundamentale si geometrodinamica*, contract de cercetare dezvoltare inovare, contract: 2-CEx06-11-92/2006, Director de proiect: Prof. univ. dr. Constantin Bizdadea
8. *Teorii topologice de camp*, grant CNCSIS tip A, contract: 97GR/2007; 65GR/2008, cod CNCSIS: 581/2007, Director de proiect: Prof. univ. dr. Constantin Bizdadea
9. *Grassmannieni neliniari si grupuri de difeomorfisme*, contract PNII, contract nr. 120/2017, Director de contract: Conf. Univ. dr. Cornelia Vizman

#### ALTE INFORMATII RELEVANTE

- In anul 2008, dr. Eugen-Mihaita Cioroianu a fost distins cu premiul *Serban Titeica* acordat de Institutul National de Cercetare Dezvoltare pentru Fizica si Inginerie Nucleara *Horia Hulubei*;
- In acord cu baza de date Web of Science, lucrarile stiintifice publicate de Eugen-Mihaita Cioroianu au acumulat un numar de **125** citari in sens pozitiv [fara auto-citari];
- Indicele Hirsch [in acord cu Web of Science] este egal cu **11**;
- ResearcherID: B-7762-2011, <http://www.researcherid.com/rid/B-7762-2011>.

Craiova,  
31/01/2021

Eugen-Mihăiță CIOROIANU