

## Assoc. Prof. Sultan ÇELİK

### Personal Information

**Office Phone:** [+90 212 383 4348](tel:+902123834348)

**Email:** [sultan@yildiz.edu.tr](mailto:sultan@yildiz.edu.tr)

**Web:** <https://avesis.yildiz.edu.tr/sultan>

### International Researcher IDs

ScholarID: ExFKVQoAAAAJ

ORCID: 0000-0003-3465-8209

Publons / Web Of Science ResearcherID: AAZ-5789-2020

ScopusID: 35360323500

Yoksis Researcher ID: 189539

### Education Information

Doctorate, Mimar Sinan Fine Arts University, Faculty Of Arts And Sciences, Department Of Mathematics, Turkey 1992 - 1995

Postgraduate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, Turkey 1988 - 1991

Undergraduate, Ataturk University, Turkey 1982 - 1986

### Dissertations

Doctorate, GLp.q (1/1) kuantum süper grubunun özellikleri, Mimar Sinan Fine Arts University, Department of Sensory (Sound) Arts Design, Department Of Mathematics, 1995

Postgraduate, Reimann manifoldları üzerindeki geodeziklerin bazı türleri, Yildiz Technical University, Faculty of Arts & Science, Department of Mathemeatics, 1991

### Research Areas

Mathematics, Geometry

### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 1998 - Continues

### Published journal articles indexed by SCI, SSCI, and AHCI

#### I. A NEW QUANTUM SUPERGROUP AND ITS GAUSS DECOMPOSITION

Çelik S., Celik S. A.

REPORTS ON MATHEMATICAL PHYSICS, vol.88, no.2, pp.259-269, 2021 (SCI-Expanded)

#### II. Differential Calculi on Super-Hopf Algebra $F(R-q(1 \text{ vertical bar } 2))$

Celik S.

ADVANCES IN APPLIED CLIFFORD ALGEBRAS, vol.28, no.5, 2018 (SCI-Expanded)

- III. **Differential Calculi on  $Z(3)$ - Graded Grassmann Plane**  
 Çelik S., Çelik S.  
 ADVANCES IN APPLIED CLIFFORD ALGEBRAS, vol.27, no.3, pp.2407-2427, 2017 (SCI-Expanded)
- IV. **A Differential Calculus on the  $(h, j)$ -Deformed  $Z(3)$ -Graded Superplane**  
 Çelik S., Çelik S., Çene E.  
 ADVANCES IN APPLIED CLIFFORD ALGEBRAS, vol.24, no.3, pp.643-659, 2014 (SCI-Expanded)
- V. **Differential geometry of the quantum 3-dimensional space**  
 ÇELİK S., YAŞAR E.  
 CZECHOSLOVAK JOURNAL OF PHYSICS, vol.56, no.3, pp.229-236, 2006 (SCI-Expanded)
- VI. **Differential geometry of the Lie algebra of the quantum plane**  
 ÇELİK S., ÇELİK S.  
 CZECHOSLOVAK JOURNAL OF PHYSICS, vol.55, no.4, pp.463-471, 2005 (SCI-Expanded)
- VII. **Differential geometry of the  $q$ -plane**  
 Çelik S., Çelik S.  
 INTERNATIONAL JOURNAL OF MODERN PHYSICS A, vol.15, pp.3237-3243, 2000 (SCI-Expanded)
- VIII. **Two-parameter differential calculus on the  $h$ -superplane**  
 ÇELİK S., ÇELİK S.  
 JOURNAL OF MATHEMATICAL PHYSICS, vol.40, no.11, pp.5998-6008, 1999 (SCI-Expanded)
- IX. **Two parameter nonstandard deformation of  $2 \times 2$  matrixess**  
 ÇELİK S., ÇELİK S.  
 Journal Of Mathematical Physics, vol.40, pp.3553-3560, 1999 (SCI-Expanded)
- X. **Two-parametric extension of  $h$ -deformation of  $Gr(1 \text{ vertical bar } 1)$**   
 ÇELİK S., HIZEL E., ÇELİK S.  
 JOURNAL OF MATHEMATICAL PHYSICS, vol.40, no.6, pp.3091-3098, 1999 (SCI-Expanded)
- XI. **On the differential geometry of  $GL(q)(1 \text{ vertical bar } 1)$**   
 ÇELİK S., ÇELİK S.  
 JOURNAL OF PHYSICS A-MATHEMATICAL AND GENERAL, vol.31, no.48, pp.9685-9694, 1998 (SCI-Expanded)
- XII. **Comment on the differential calculus on the quantum exterior plane**  
 ÇELİK S., ÇELİK S., ARIK M.  
 MODERN PHYSICS LETTERS A, vol.13, no.20, pp.1645-1651, 1998 (SCI-Expanded)
- XIII. **Differential calculus on the  $h$ -superplane**  
 ÇELİK S., ÇELİK S., ARIK M.  
 JOURNAL OF MATHEMATICAL PHYSICS, vol.39, no.6, pp.3426-3436, 1998 (SCI-Expanded)
- XIV. **Two-parameter differential calculus on the  $h$ -exterior plane**  
 ÇELİK S., ÇELİK S.  
 MODERN PHYSICS LETTERS A, vol.13, no.5, pp.413-418, 1998 (SCI-Expanded)

## Articles Published in Other Journals

- I. **On the  $Z_3$ -Graded Structures**  
 Çelik S., Çelik S.  
 Hagia Sophia Journal of Geometry, vol.5, no.2, pp.31-40, 2023 (Peer-Reviewed Journal)
- II. **A Two-parameter Deformation of Supergroup  $GL(12)$**   
 ÇELİK S.  
 Journal of the Institute of Science and Technology, vol.8, pp.271-279, 2018 (Peer-Reviewed Journal)
- III. **A differential calculus on the quantum space  $R_{3,q}$**   
 BAKKALOĞLU A., ÇELİK S.  
 Balkan Phys. Lett., vol.18, pp.436-443, 2010 (Peer-Reviewed Journal)
- IV. **On the differential geometry of  $GL_q(2)$**   
 KARACA M. A., ÇELİK S.

- Balkan Phys. Lett., vol.12, pp.1-8, 2004 (Peer-Reviewed Journal)
- V. **On the exponential representation of  $GL_{p,q}(1,1)$**   
 ÇELİK S., ÇAĞIRGAN GÜLTEN D.  
 Balkan J. Geo. and Its. Appl., vol.7, pp.7-18, 2002 (Peer-Reviewed Journal)
- VI. **Differential calculus on the h-exterior plane via a contraction**  
 ÇELİK S.  
 Balkan Phys. Lett., vol.7, no.1, pp.11-20, 1999 (Peer-Reviewed Journal)
- VII. **Hopf algebra structure of  $Gr_q(2)$  related to  $GL_q(2)$**   
 ÇELİK S., KARACA M. A.  
 Balkan Phys. Lett., vol.6, pp.160-164, 1998 (Peer-Reviewed Journal)
- VIII. **On the quantum supergroup  $SU_{\{p,q\}}(1/1)$  and quantum oscillators**  
 ÇELİK S., ÇELİK S.  
 TURKISH JOURNAL OF PHYSICS, vol.21, pp.1221-1228, 1997 (Scopus)
- IX. **The properties of the quantum supergroup  $GL_{\{p,q\}}(1/1)$**   
 ÇELİK S., ÇELİK S.  
 Balkan Phys. Lett., vol.1, pp.32-41, 1997 (Peer-Reviewed Journal)
- X. **Quantum properties of dual matrices in  $GL_q(1/1)$**   
 ÇELİK S., ÇELİK S.  
 Balkan Phys. Lett., vol.3, pp.188-192, 1995 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Kısa Teori ve Çözümlü Problemlerle MATEMATİK ANALİZ I**  
 ÇELİK S., ÇELİK S.  
 BİRSEN, İstanbul, 2018
- II. **MATEMATİK CİLT II - Calculus Early Transcendentals**  
 BAŞARIR M., ÇELİK S., ÇELİK S., COŞKUN E., EKİNCİOĞLU İ.  
 Nobel Akademik Yayıncılık, Ankara, 2017
- III. **Matematik Analiz I**  
 ÇELİK S., ÇELİK S.  
 Birsen Yaynevi, İstanbul, 2010
- IV. **Matematik Analiz II**  
 ÇELİK S., ÇELİK S.  
 Birsen Yaynevi, 2010

## Refereed Congress / Symposium Publications in Proceedings

- I. **An h-DEFORMATION OF SYMPLECTIC (1,2)-SUPERSPACE VIA ACONTRACTION**  
 ÇELİK S., AYDEMİR C.  
 4th INTERNATIONAL CONFERENCE ON ANALYSIS AND ITS APPLICATIONS, 11 - 14 September 2018
- II. **The symmetry group of the differential calculus on  $F(R_q(1,1))$**   
 ÇELİK S., ÇELİK S., TEMLİ İ.  
 16TH INTERNATIONAL GEOMETRY SYMPOSIUM, 4 - 07 July 2018, pp.252-253
- III. **On the Differential Geometry of  $GL_{p,q}(1,1)$**   
 ÇELİK S., İLKNUR T.  
 16. ULUSLARARASI GEOMETRİ SEMPOZYUMU, 4 - 07 July 2018
- IV. **An h-deformation of the Superspace  $R(1/2)$  via a contraction**  
 ÇELİK S., ÇELİK S., BULUT F.  
 13th Algebraic Hyperstructures and its Applications (AHA2017), İstanbul, Turkey, 24 - 27 July 2017, pp.117-118

## V. A differential calculus on $GL_q(2/1)$ kuantum supergroup

ARIKAN M., ÇELİK S.

Int Con on Quantum Science and Applications, Eskişehir, Turkey, 25 - 27 May 2016

## Supported Projects

Çelik S., TUBITAK Project, Yeni bir  $Z_3$ -dereceli kuantum uzay ve onun geometrisi, 2023 - 2024

ÇELİK S., ÇELİK S., Project Supported by Higher Education Institutions,  $F(C_h^2|1)$  Hopf Süper Cebiri Üzerine Genişletilmiş Diferansiyel Hesap, 2023 - 2023

ÇELİK S., Temli İ., ÇELİK S., Project Supported by Higher Education Institutions,  $GL_{\{p,q\}}(1|1)$  Kuantum Süper Grup Üzerine İki-Kovaryant Diferansiyel Hesaplar, 2022 - 2023

ÇELİK S., ÇELİK S., Project Supported by Higher Education Institutions, Yeni bir kuantum süper grup ve onun Gauss ayrışımı, 2021 - 2021

## Metrics

Publication: 33

Citation (WoS): 35

Citation (Scopus): 38

H-Index (WoS): 4

H-Index (Scopus): 4