

# Hyun-Chul Kim

## List of Publications by Year in descending order

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Version: 2024-02-01

122  
papers

1,945  
citations

257450

24  
h-index

345221

36  
g-index

125  
all docs

125  
docs citations

125  
times ranked

1181  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Electronic Cigarette Vaping Did Not Enhance the Neural Process of Working Memory for Regular Cigarette Smokers. <i>Frontiers in Human Neuroscience</i> , 2022, 16, 817538.   | 2.0 | 0         |
| 2  | Axial-vector transition form factors of the baryon octet to the baryon decuplet with flavor SU(3) symmetry breaking. <i>Physical Review D</i> , 2022, 105, .   | 4.7 | 4         |
| 3  | Strong force fields and stabilities of the nucleon and singly heavy baryon $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \langle \text{mml:mi mathvariant="normal"} \hat{\Lambda} \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:msub} \rangle \langle \text{mml:math} \rangle$ . <i>Physical Review D</i> , 2021, 103, .  | 4.7 | 18        |
| 4  | Electromagnetic transitions of the singly charmed baryons with spin $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \rangle \langle \text{mml:mn} \rangle 3 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 2 \langle \text{mml:mn} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ . <i>Physical Review D</i> , 2021, 103, .  | 4.7 | 12        |
| 5  | Focused ultrasound enhances the anesthetic effects of topical lidocaine in rats. <i>BMC Anesthesiology</i> , 2021, 21, 158.  | 1.8 | 2         |
| 6  | Baryonic matter and the medium modification of the baryon masses. <i>Physical Review C</i> , 2021, 103, .  | 2.9 | 4         |
| 7  | Production of hidden-charm strange pentaquarks $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msub} \langle \text{mml:mi} \rangle P \langle \text{mml:mrow} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:msub} \rangle$ from the $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:msup} \langle \text{mml:mi} \rangle K \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle \hat{a} \langle \text{mml:msup} \rangle \langle \text{mml:mi} \rangle p \langle \text{mml:mi} \rangle \langle \text{mml:mo} \rangle$ strategy. <i>Phys. Rev. Lett.</i> , 2021, 126, 022001. | 4.7 | 13        |
| 8  | Mixed-effects multilevel analysis followed by canonical correlation analysis is an effective $\langle \text{sc} \rangle$ fMRI $\langle \text{sc} \rangle$ tool for the investigation of idiosyncrasies. <i>Human Brain Mapping</i> , 2021, 42, 5374-5396.  | 3.6 | 6         |
| 9  | Transcranial focused ultrasound modulates cortical and thalamic motor activity in awake sheep. <i>Scientific Reports</i> , 2021, 11, 19274.  | 3.3 | 17        |
| 10 | Transverse charge distributions of the nucleon and their Abel images. <i>Physical Review D</i> , 2021, 104, .  | 4.7 | 9         |
| 11 | Energy-momentum tensor of the nucleon on the light front: Abel tomography case. <i>Physical Review D</i> , 2021, 104, .  | 4.7 | 11        |
| 12 | Test-retest reliability of spatial patterns from resting-state functional MRI using the restricted Boltzmann machine and hierarchically organized spatial patterns from the deep belief network. <i>Journal of Neuroscience Methods</i> , 2020, 330, 108451.   | 2.5 | 6         |
| 13 | Personalized prediction of smartphone-based psychotherapeutic micro-intervention success using machine learning. <i>Journal of Affective Disorders</i> , 2020, 264, 430-437.   | 4.1 | 16        |
| 14 | fMRI volume classification using a 3D convolutional neural network robust to shifted and scaled neuronal activations. <i>NeuroImage</i> , 2020, 223, 117328.   | 4.2 | 17        |
| 15 | Isospin mass differences of singly heavy baryons. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2020, 808, 135619.   | 4.1 | 14        |
| 16 | $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle \tilde{f} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ and $\langle \text{mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mi} \rangle \tilde{\kappa} \langle \text{mml:mi} \rangle \langle \text{mml:math} \rangle$ coupling constants for the charmed and beauty mesons. <i>Physical Review D</i> , 2020, 102, .   | 4.7 | 3         |
| 17 | Axial-vector form factors of the baryon decuplet with flavor SU(3) symmetry breaking. <i>Physical Review D</i> , 2020, 102, .  | 4.7 | 10        |
| 18 | A naturalistic viewing paradigm using 360° panoramic video clips and real-time field-of-view changes with eye-gaze tracking. <i>NeuroImage</i> , 2020, 216, 116617.  | 4.2 | 16        |



| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 37 | Production of strange and charmed baryons in pion induced reactions. Physical Review D, 2015, 92, .   | 4.7 | 18        |
| 38 | Weak $K^+ \rightarrow \pi^0$ generalized form factors and transverse transition quark-spin density from the instanton vacuum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2015, 747, 460-467. | 4.1 | 3         |
| 39 | Desynchronization of the mu oscillatory activity during motor imagery: A preliminary EEG-fMRI study. , 2015, , .  |     | 0         |
| 40 | Recursive approach of EEG-segment-based principal component analysis substantially reduces cryogenic pump artifacts in simultaneous EEG-fMRI data. NeuroImage, 2015, 104, 437-451.  | 4.2 | 23        |
| 41 | Stability of the pion and the pattern of chiral symmetry breaking. Physical Review D, 2014, 90, .   | 4.7 | 13        |
| 42 | Energy-momentum tensor form factors of the nucleon within a $\rho$ soliton model. Journal of Physics G: Nuclear and Particle Physics, 2014, 41, 055107.   | 3.6 | 24        |
| 43 | $\Lambda$ photoproduction with coupled-channel effects. Progress of Theoretical and Experimental Physics, 2014, 2014, 23D03-0.  | 6.6 | 31        |
| 44 | Effects of $N(2000)5/2^+$ , $N(2060)5/2^+$ , $N(2120)3/2^+$ , and $N(2190)7/2^+$ on $K^+ \rightarrow \pi^0$ photoproduction. Physical Review D, 2014, 90, .   | 4.7 | 18        |
| 45 | In-medium modified energy-momentum tensor form factors of the nucleon within the framework of a $\rho$ soliton model. Physical Review D, 2014, 89, .  | 4.7 | 30        |
| 46 | A Modified Pion-Rho-Omega Mesonic Lagrangian in Nuclear Matter. Few-Body Systems, 2013, 54, 1067-1070.  | 1.5 | 0         |
| 47 | Energy-Momentum Tensor Form Factors of the Nucleon in Nuclear Matter in the Chiral Soliton Model. Few-Body Systems, 2013, 54, 1083-1086.  | 1.5 | 0         |
| 48 | Contribution of $N^*$ and $\Lambda^*$ Resonances in $\{K^* \Sigma\}$ (1190) Photoproduction. Few-Body Systems, 2013, 54, 1499-1502.   | 1.5 | 0         |
| 49 | In-medium modified $\rho$ mesonic Lagrangian and properties of nuclear matter. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2013, 723, 442-447.  | 4.1 | 11        |
| 50 | Overview of the KoRIA Facility for Rare Isotope Beams. Few-Body Systems, 2013, 54, 197-204.   | 1.5 | 12        |
| 51 | $K^+ \rightarrow \pi^0$ Photoproduction and Nucleon Resonances. Few-Body Systems, 2013, 54, 307-310.  | 1.5 | 0         |
| 52 | Tensor Form Factors and Transverse Spin Structures of the Nucleon. Few-Body Systems, 2013, 54, 317-320.   | 1.5 | 0         |
| 53 | Vector and Tensor Coupling Constants of SU(3) Baryons in a Chiral Soliton Model. Few-Body Systems, 2013, 54, 325-328.   | 1.5 | 1         |
| 54 | Pion-Rho Meson Lagrangian in Nuclear Matter. Few-Body Systems, 2013, 54, 465-468.   | 1.5 | 0         |

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|----|--|-----|-----------|
| 55 | Nuclear Matter Properties from a Chiral Soliton Model. <i>Few-Body Systems</i> , 2013, 54, 517-520.  | 1.5 | 0         |
| 56 | Transverse charge densities in the nucleon in nuclear matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2013, 726, 375-381.  | 4.1 | 4         |
| 57 | $\hat{\Gamma} +$ baryon, $N^*$ (1685) resonance, and $\hat{\Gamma}N$ sigma term reexamined within the framework of a chiral soliton model. <i>Progress of Theoretical and Experimental Physics</i> , 2013, 2013, . | 6.6 | 2         |
| 58 | $K^*\hat{\Gamma}$ photoproduction off the proton target with baryon resonances. <i>Physical Review D</i> , 2013, 88, .   | 4.7 | 16        |
| 59 | Transverse strange quark spin structure of the nucleon. <i>Physical Review D</i> , 2012, 85, .   | 4.7 | 5         |
| 60 | Spin structures of the pion and nucleon. <i>EPJ Web of Conferences</i> , 2012, 20, 01008.  | 0.3 | 0         |
| 61 | Parity-violating $\hat{\Gamma}NN$ coupling constant in the chiral quark soliton model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 713, 439-446.               | 4.1 | 6         |
| 62 | Mass splittings of the baryon decuplet and antidecuplet with second-order flavor symmetry breakings within a chiral soliton model. <i>Journal of the Korean Physical Society</i> , 2012, 61, 1956-1964.            | 0.7 | 5         |
| 63 | Energy-momentum tensor form factors of the nucleon in nuclear matter. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 718, 625-631.                                | 4.1 | 49        |
| 64 | Properties of the bound nucleons. <i>EPJ Web of Conferences</i> , 2012, 20, 04005.   | 0.3 | 2         |
| 65 | Generalized form factors and spin structures of the kaon. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2012, 707, 546-552.  | 4.1 | 8         |
| 66 | A phenomenological description of an incoherent Fermi liquid near optimal doping in high- $T_c$ cuprates. <i>Journal of Physics Condensed Matter</i> , 2011, 23, 495701.   | 1.8 | 1         |
| 67 | Electromagnetic mass differences of $SU(3)$ baryons within a chiral soliton model. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 695, 214-218.                   | 4.1 | 16        |
| 68 | Spin structure of the pion from the instanton vacuum. <i>Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics</i> , 2011, 700, 305-312.  | 4.1 | 19        |
| 69 | Nucleon Properties in Nuclear Matter. , 2011, , .  |     | 0         |
| 70 | Contribution of higher nucleon resonances to $K^*\hat{\Gamma}$ photoproduction. <i>Physical Review D</i> , 2011, 84, .   | 4.7 | 47        |
| 71 | Binding energy per nucleon and hadron properties in nuclear matter. <i>Physical Review C</i> , 2011, 83, .   | 2.9 | 17        |
| 72 | $\hat{\Gamma}K[\sup \hat{\Gamma}^-] \hat{\Gamma}(1116)$ photoproduction and nucleon resonances. , 2011, , .  |     | 1         |

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 73 | The mass splittings of SU(3) baryons within a chiral soliton model. , 2011, , .   |     | 0         |
| 74 | Tensor properties of the nucleon. , 2011, , .   |     | 0         |
| 75 | ??(1405,1/2?) Photoproduction from the ??p $\hat{A}_1$ ? K+??(1405) Reaction. Journal of the Korean Physical Society, 2011, 59, 2676-2683.  | 0.7 | 8         |
| 76 | Pion Electromagnetic Form Factor and ??-meson Mass Shift at Finite Density. Journal of the Korean Physical Society, 2011, 59, 217-223.  | 0.7 | 0         |
| 77 | Hadrons from a hard wall AdS/QCD model. Chinese Physics C, 2010, 34, 1520-1522.   | 3.7 | 1         |
| 78 | Tensor charges and form factors of SU(3) baryons in the self-consistent SU(3) chiral quark-soliton model. Physical Review D, 2010, 82, .  | 4.7 | 26        |
| 79 | Anomalous tensor magnetic moments and form factors of the proton in the self-consistent chiral quark-soliton model. Physical Review D, 2010, 82, .  | 4.7 | 17        |
| 80 | BARYON ANTIDECUPLER IN THE CHIRAL QUARK-SOLITON MODEL. , 2010, , .  |     | 0         |
| 81 | $\hat{E}_1$ -PHOTOPRODUCTION NEAR THE THRETHOLD WITHIN AN EFFECTIVE LAGRANGIAN APPROACH. , 2010, , .  |     | 0         |
| 82 | MESONS AND NUCLEONS FROM HOLOGRAPHIC QCD. , 2010, , .   |     | 0         |
| 83 | Mesons and nucleons from holographic QCD in a unified approach. Journal of High Energy Physics, 2009, 2009, 034-034.  | 4.7 | 9         |
| 84 | Hybrid exotic meson with $\langle i \rangle \langle i \rangle \langle \sup \rangle PC \langle /sup \rangle = 1 \langle \sup \rangle \hat{a}^{\sup} \langle /sup \rangle$ in AdS/QCD. Journal of High Energy Physics, 2009, 2009, 034-034. | 4.7 | 6         |
| 85 | Photoproduction of $\hat{f}^-(1540,1/2^+)$ reexamined with new theoretical information. Physical Review D, 2009, 79, .  | 4.7 | 1         |
| 86 | Magnetic Susceptibility of the QCD Vacuum at a Finite Quark-chemical Potential. Journal of the Korean Physical Society, 2009, 55, 429-434.  | 0.7 | 5         |
| 87 | Pion weak decay constant at finite density from the instanton vacuum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2008, 666, 324-331.   | 4.1 | 10        |
| 88 | Vector transition form factors of the and in the chiral quark-soliton model. Nuclear Physics A, 2008, 811, 353-377.   | 1.5 | 12        |
| 89 | Axial-vector transitions and strong decays of the baryon antidecuplet in the self-consistent SU(3) chiral quark-soliton model. Physical Review D, 2008, 78, .   | 4.7 | 12        |
| 90 | Quark-gluon mixed condensate of the QCD vacuum in holographic QCD. Journal of High Energy Physics, 2008, 2008, 011-011.   | 4.7 | 6         |

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|-----|--|-----|-----------|
| 91  | Semileptonic hyperon decays in the self-consistent SU(3) chiral quark-soliton model. Journal of High Energy Physics, 2008, 2008, 132-132.  | 4.7 | 18        |
| 92  | Electromagnetic form factors of the pion and kaon from the instanton vacuum. Physical Review D, 2008, 77, .  | 4.7 | 26        |
| 93  | The electric dipole moment of the nucleons in holographic QCD. Journal of High Energy Physics, 2007, 2007, 036-036.  | 4.7 | 20        |
| 94  | Kaon semileptonic decay ( $K_{l3}$ ) form factors from the instanton vacuum. Physical Review D, 2007, 75, .  | 4.7 | 12        |
| 95  | Quark spin content of the proton, hyperon semileptonic decays, and the decay width of the $\Sigma^+$ -pentaquark. Physical Review D, 2007, 75, .                                       | 4.7 | 13        |
| 96  | Test of the reaction mechanism for $\hat{\pi}^0 N \hat{\pi}^+ K^*(1520)$ using the polarized photon. Physical Review D, 2007, 75, .  | 4.7 | 14        |
| 97  | $1/N$ corrections to the magnetic susceptibility of the QCD vacuum. Physical Review D, 2007, 76, .   | 4.7 | 23        |
| 98  | QCD condensates with flavor SU(3) symmetry breaking from the instanton vacuum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2007, 647, 145-151.   | 4.1 | 18        |
| 99  | Leading-twist pion and kaon distribution amplitudes in the gauge-invariant nonlocal chiral quark model from the instanton vacuum. Physical Review D, 2006, 74, .                       | 4.7 | 33        |
| 100 | Leading-twist pion and kaon distribution amplitudes from the QCD instanton vacuum. Physical Review D, 2006, 74, .  | 4.7 | 42        |
| 101 | Parity-violating asymmetries in elastic $e^+p$ scattering in the chiral quark-soliton model: Comparison with the A4, G0, HAPPEX and SAMPLE experiments. Physical Review D, 2006, 74, . | 4.7 | 21        |
| 102 | Twist-3 pion and kaon distribution amplitudes from the instanton vacuum with flavor SU(3) symmetry breaking. Physical Review D, 2006, 74, .  | 4.7 | 21        |
| 103 | Meson-loop contributions to the quark condensate from the instanton vacuum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2006, 633, 701-709.      | 4.1 | 18        |
| 104 | Suppression of $\chi$ production in the instanton vacuum. Physical Review D, 2006, 74, .   | 4.1 | 16        |
| 105 | Suppression of $\chi$ production in the instanton vacuum. Physical Review D, 2006, 74, .   | 4.1 | 41        |
| 106 | $\hat{\pi}^0 S = 0$ effective weak chiral Lagrangian from the instanton vacuum. European Physical Journal C, 2006, 45, 451-457.  | 3.9 | 4         |
| 107 | Pentaquark $\hat{\pi}^+$ production via $\hat{\pi}^0 N \hat{\pi}^+ K^*(1520)$ . Physical Review C, 2006, 74, .   | 2.9 | 2         |
| 108 | Magnetic susceptibility of the QCD vacuum. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2005, 608, 95-106.  | 4.1 | 34        |

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|-----|---|------|-----------|
| 109 | Pentaquarks: Review on models and solitonic calculations of antidecuplet magnetic moments. Progress in Particle and Nuclear Physics, 2005, 55, 350-373.                             | 14.4 | 21        |
| 110 | Strangeness-conserving effective weak chiral Lagrangian. European Physical Journal A, 2005, 24, 105-105.  | 2.5  | 2         |
| 111 | $\hat{\Lambda}(1520, 3/2^+)$ -photoproduction reaction via $\hat{\Lambda}^3\hat{N}\hat{\Lambda}^*K^*(1520)$ . Physical Review D, 2005, 71, .  | 4.7  | 45        |
| 112 | Exotic and nonexotic magnetic transitions in the context of the SELEX and GRAAL experiments. Physical Review D, 2005, 71, .   | 4.7  | 34        |
| 113 | Axial-vector form factors of the nucleon within the chiral quark-soliton model and their strange components. Physical Review D, 2005, 72, .   | 4.7  | 32        |
| 114 | Octet, decuplet, and antidecuplet magnetic moments in the chiral quark soliton model reexamined. Physical Review D, 2004, 70, .   | 4.7  | 30        |
| 115 | Production of the pentaquark $\hat{\Lambda}^+$ in np scattering. Physical Review D, 2004, 70, .   | 4.7  | 5         |
| 116 | Effective chiral Lagrangian in the chiral limit from the instanton vacuum. Physical Review D, 2004, 69, .   | 4.7  | 8         |
| 117 | Magnetic moments of exotic pentaquarks in the chiral quark soliton model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2004, 585, 99-105.      | 4.1  | 31        |
| 118 | Threshold production of the $\hat{\Lambda}(1520, 3/2^+)$ pentaquark. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2001, 500, 105-110.          | 4.1  | 10        |
| 119 | A test of the instanton vacuum with low-energy theorems of the axial anomaly. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 2003, 572, 181-188. | 4.1  | 18        |
| 120 | $\hat{\Lambda}^*S=1,2$ effective weak chiral Lagrangian from the instanton vacuum. Nuclear Physics A, 2002, 699, 541-561.   | 1.5  | 7         |
| 121 | Strange form factors in the context of SAMPLE, HAPPEX, and A4 experiments. Physical Review D, 2001, 65, .   | 4.7  | 41        |
| 122 | Tensor charges of the nucleon in the SU(3) chiral quark soliton model. Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 1996, 387, 577-581.        | 4.1  | 43        |