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Faculty, Scientists and Students of IISER Pune.
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BIOLOGY

Author(s) CHAVHAN, YASHRAJ D.; ALI, SAYYAD IRFAN; DEY, SUTIRTH
Title Larger Numbers Can Impede Adaptation in Asexual Populations despite Entailing Greater Genetic Variation
Citation Evolutionary Biology, 46(1), 1-13.
Publisher Springer
URI <https://doi.org/10.1007/s11692-018-9467-6>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2389>
Date of Publication MAR-2019

Author(s) MATANGE, NISHAD; HEGDE, SUSHMITHA; BODKHE, SWAPNIL
Title Adaptation Through Lifestyle Switching Sculpts the Fitness Landscape of Evolving Populations: Implications for the Selection of Drug-Resistant Bacteria at Low Drug Pressures
Citation Genetics, 211(3), 1029-1044.
Publisher Genetics Society America
URI <https://doi.org/10.1534/genetics.119.301834>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2406>
Date of Publication 01-03-2019

Author(s) Moulick, Roumita; Goluguri, Rama Reddy; UDGAONKAR, JAYANT B.
Title Ruggedness in the Free Energy Landscape Dictates Misfolding of the Prion Protein
Citation Journal of Molecular Biology, 431(4), 807-824.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.jmb.2018.12.009>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2397>
Date of Publication 15-02-2019

Author(s) SURANSE, VIVEK; Sawant, Nitin S.; Bastawade, D. B.; DAHANUKAR, NEELESH
Title Haplotype diversity in medically important red scorpion (Scorpiones: Buthidae: Hottentottatamulus) from India
Citation Journal of Genetics, 98.
Publisher Indian Academy of Sciences
URI <https://doi.org/10.1007/s12041-019-1058-5>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2396>
Date of Publication MAR-2019

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CHEMISTRY

Author(s) Akram, Mohd; Ansari, Farah; BHAT, IMTIYAZ AHMAD; Kabir-ud-Din
Title Probing interaction of bovine serum albumin (BSA) with the biodegradable version of cationic gemini surfactants
Citation Journal of Molecular Liquids, 276, 519-528.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.molliq.2018.10.123>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2392>
Date of Publication 15-02-2019

Author(s) CHAUDHARI, MORESHWAR B.; CHAUDHARY, ATUL; KUMAR, VISHNUPRIYA; GNANAPRAKASAM, BOOPATHY
Title The Rearrangement of Peroxides for the Construction of Fluorophoric 1,4-Benzoxazin-3-one Derivatives
Citation Organic Letters, 21(06), 1617-1621.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.orglett.9b00155>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2407>
Date of Publication 22-02-2019

Author(s) Chauhan, Rohit Singh; SHIVRAN, NEELAM et al.
Title Copper complexes of arylselenolate-based ligands: synthesis and catalytic activity in azide-alkyne cycloaddition reactions
Citation New Journal of Chemistry, 43(5), 2381-2388.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/c8nj04602f>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2387>
Date of Publication 03-01-2019

Author(s) GHOSH, CHANDRAMOULI; NANDI, ADITI; Basu, Sudipta
Title Supramolecular self-assembly of triazine-based small molecules: targeting the endoplasmic reticulum in cancer cells
Citation Nanoscale, 11(7), 3326-3335.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/c8nr08682f>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2386>
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Author(s) KATHEWAD, NEHA; ANAGHA, M. C.; PARVIN, NASRINA; Parambath, Sneha; Parameswaran, Pattiyil; KHAN, SHABANA
Title Facile Buchwald-Hartwig coupling of sterically encumbered substrates effected by PNP ligands
Citation Dalton Transactions, 48(8), 2730-2734.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/c9dt00159j>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2380>
Date of Publication 25-01-2019

Author(s) KHAN, SHABANA; Roesky, Herbert W.
Title Carbene-Stabilized Exceptional Silicon Halides
Citation Chemistry-A European Journal, 25(7), 1636-1648.
Publisher Wiley-VCH
URI <https://doi.org/10.1002/chem.201801672>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2393>
Date of Publication 01-02-2019

Author(s) MALPATHAK, SHREYAS; Ma, Xinyou; Hase, William L.
Title Addressing an instability in unrestricted density functional theory direct dynamics simulations
Citation Journal of Computational Chemistry, 40(8), 933-936.
Publisher Wiley VCH
URI <https://doi.org/10.1002/jcc.25604>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2384>
Date of Publication 30-03-2019

Author(s) REJA, RAHI M.; PATEL, RAJAT; KUMAR, VIVEK; Jha, Anjali; GOPI, HOSAHUDYA N.
Title Divergent Supramolecular Gelation of Backbone Modified Short Hybrid delta-Peptides
Citation Biomacromolecules, 20(3), 1254-1262.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.biomac.8b01684>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2413>
Date of Publication 12-02-2019

Author(s) ROY, BIBHISAN; REDDY, MALLU CHENNA; PANJA, SOUMENDRA NATH; HAZRA, PARTHA
Title Strategy to Mechanical Activation of Centrosymmetrically Packed Organic Luminogens
Citation Journal of Physical Chemistry C, 123(6), 3848-3854.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.jpcc.8b10696>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2381>
Date of Publication 15-01-2019

Author(s) SINGH, SANTOSH K.; More, Shahaji; KUMAR, SATISH; MISHRA, KAMALK.; Ganesh,Krishna N.; DAS, ALOKE
Title A conformation-specific IR spectroscopic signature for weak C=O...C=O n→π* interaction in capped 4R-hydroxyproline
Citation Physical Chemistry Chemical Physics, 21(9), 4755-4762.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/C8CP07660J>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2375>
Date of Publication 04-02-2019

Author(s) SWARNKAR, ABHISHEK; MIR, WASIM J.; CHAKRABORTY, RAYAN; JAGADEESWARARAO, METIKOTI; SHEIKH, TARIQ; NAG, ANGSUMAN
Title Are Chalcogenide Perovskites an Emerging Class of Semiconductors for Optoelectronic Properties and Solar Cell?
Citation Chemistry of Materials, 31(3), 565-575.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.chemmater.8b04178>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2379>
Date of Publication 15-01-2019

Author(s) THIMMAPPA, RAVIKUMAR; GAUTAM, MANU; ARALEKALLU SHAMBHULINGA; DEVENDRACHAR, MRUTHUNJAYACHARII CHATTANAHALLI; KOTTAICHAMY,ALAGAR RAJA; BHAT, ZAHID MANZOOR; MUSTHAFA O. T.
Title A Rechargeable Aqueous Sodium Ion Battery
Citation ChemElectroChem
Publisher Wiley-VCH
URI <https://doi.org/10.1002/celec.201900317>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2414>
Date of Publication 25-03-2019

EARTH AND CLIMATE SCIENCE

Author(s)	SAHA, GOKUL; RAI, S. S.; Shalivahan
Title	Occurrence of diamond in peninsular India and its relationship with deep Earth seismic properties
Citation	Journal of Earth System Science, 128.
Publisher	Indian Academy of Sciences
URI	https://doi.org/10.1007/s12040-019-1088-7
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2388
Date of Publication	21-02-2019

HUMANITIES AND SOCIAL SCIENCES

Author(s)	PAI, VENKETESWARA R.
Title	The Maṅḍalavākyas: An Intermediate Numerical Table Used in the Computation of Planetary Longitudes.
Citation	East-West Encounter in the Science of Heaven and Earth, ICTSA2017, 50.
Publisher	Institute for Research in Humanities, Kyoto University
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2419
Date of Publication	13-01-2019

MATHEMATICS

Author(s)	BANERJEE, DEBIKA; Baruch, Ehud Moshe; Tenetov, Evgeny
Title	A Voronoi-Oppenheim summation formula for totally real number fields
Citation	Journal of Number Theory, 199, 63-97.
Publisher	Elsevier B.V.
URI	https://doi.org/10.1016/j.jnt.2018.04.008
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2409
Date of Publication	JUN-2019

Author(s)	BANERJEE, DEBARGHA; MANDAL, TATHAGATA
Title	Supercuspidal ramifications and traces of adjoint lifts
Citation	Journal of Number Theory
Publisher	Elsevier B.V.
URI	https://doi.org/10.1016/j.jnt.2019.02.017
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2408
Date of Publication	20-03-2019

Author(s) BHAKTA, MOUSOMI; MUKHERJEE, DEBANGANA
Title Multiplicity results for (P, Q) fractional elliptic equations involving critical nonlinearities
Citation Advances in Differential Equations, 24(3-4), 185-228.
Publisher Khayyam Publishing
URI <https://projecteuclid.org/euclid.ade/1548212469>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2377>
Date of Publication MAR-APR 2019

Author(s) BHAKTA, MOUSOMI; MUKHERJEE, DEBANGANA
Title Nonlocal scalar field equations: Qualitative properties, asymptotic profiles and local uniqueness of solutions
Citation Journal of Differential Equations, 266(11), 6985-7037.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.jde.2018.11.023>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2412>
Date of Publication 15-05-2019

Author(s) Das, Milan Kumar; GOSWAMI, ANINDYA
Title Testing of binary regime switching models using squeeze duration analysis
Citation Journal of Financial Engineering.
Publisher World Scientific Publishing
URI <https://doi.org/10.1142/S2424786319500063>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2418>
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Author(s) PAL, RATNA
Title Fatou-Julia dichotomy of matrix-valued polynomials
Citation Journal of Mathematical Analysis and Applications, 473(2), 918-933.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.jmaa.2018.12.080>
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PHYSICS

Author(s) BHOSALE, RESHMA; JAIN, SRASHTI; Vinod, Chathakudath Prabhakaran; Kumar, Santosh; OGALE, SATISHCHANDRA

Title Direct Z-Scheme g-C₃N₄/FeWO₄ Nanocomposite for Enhanced and Selective Photocatalytic CO₂ Reduction under Visible Light

Citation ACS Applied Materials & Interfaces, 11(6), 6174-6183.

Publisher American Chemical Society

URI <https://doi.org/10.1021/acsami.8b22434>

DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2382>

Date of Publication 25-01-2019

Author(s) Babar, Rohit; KABIR, MUKUL

Title Ferromagnetism in nitrogen-doped graphene

Citation Physical Review B, 99(11), 115442.

Publisher American Physical Society

URI <https://doi.org/10.1103/PhysRevB.99.115442>

DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2417>

Date of Publication 29-03-2019

Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.

Title Measurements of $tt^{-}tt^{-}$ differential cross sections in proton-proton collisions at $\sqrt{s}=13\text{s}=13$ TeV using events containing two leptons

Citation Journal of High Energy Physics.

Publisher Springer

URI [https://doi.org/10.1007/JHEP02\(2019\)149](https://doi.org/10.1007/JHEP02(2019)149)

DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2391>

Date of Publication 22-02-2019

Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S. et al.

Title Search for new physics in final states with a single photon and missing transverse momentum in proton-proton collisions at $\sqrt{s}=13$ TeV

Citation Journal of High Energy Physics.

Publisher Springer

URI [https://doi.org/10.1007/JHEP02\(2019\)074](https://doi.org/10.1007/JHEP02(2019)074)

DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2383>

Date of Publication 13-02-2019

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Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S. et al.
Title Search for long-lived particles decaying into displaced jets in proton-proton collisions at $\sqrt{s}=13$ TeV
Citation Physical Review D, 99(3).
Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevD.99.032011>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2385>
Date of Publication 21-02-2019

Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S. et al.
Title Search for a heavy resonance decaying to a top quark and a vector-like top quark in the lepton + jets final state in pp collisions at $\sqrt{s}=13$ TeV
Citation The European Physical Journal C, 79(3).
Publisher Springer
URI <https://doi.org/10.1140/epjc/s10052-019-6688-5>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2410>
Date of Publication 07-03-2019

Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.
Title Search for $t\bar{t}H$ production in the $H\rightarrow b\bar{b}$ decay channel with leptonic $t\bar{t}$ decays in proton-proton collisions at $\sqrt{s}=13$ TeV
Citation Journal of High Energy Physics
Publisher Springer
URI [https://doi.org/10.1007/JHEP03\(2019\)026](https://doi.org/10.1007/JHEP03(2019)026)
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Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.
Title Search for pair production of second-generation leptoquarks at $\sqrt{s}=13$ TeV
Citation Physical Review D, 99(3).
Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevD.99.032014>
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Title Measurement of nuclear modification factors of $\gamma(1S)$, $\gamma(2S)$, and $\gamma(3S)$ mesons in PbPb collisions at $\sqrt{s(NN)}=5.02$ TeV
Citation Physics Letters B, 790, 270-293.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.physletb.2019.01.006>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2401>
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Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.
Title Measurement of prompt $\psi(2S)$ production cross sections in proton-lead and proton-proton collisions at $\sqrt{s(NN)}=5.02$ TeV
Citation Physics Letters B, 790, 509-532.
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URI <https://doi.org/10.1016/j.physletb.2019.01.058>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2402>
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Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.
Title Search for supersymmetric partners of electrons and muons in proton-proton collisions at $\sqrt{s}=13$ TeV
Citation Physics Letters B, 790, 140-166.
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.physletb.2019.01.005>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2403>
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Author(s) CMS Collaboration; Sirunyan, A. M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; SHARMA, S. et al.
Title Search for production of Higgs boson pairs in the four b quark final state using large-area jets in proton-proton collisions at $\sqrt{s}=13$ TeV
Citation Journal of High Energy Physics
Publisher Springer
URI [https://doi.org/10.1007/JHEP01\(2019\)040](https://doi.org/10.1007/JHEP01(2019)040)
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Title Search for Narrow Hy Resonances in Proton-Proton Collisions at $\sqrt{s}=13$ TeV
Citation Physical Review Letters, 122(8).
Publisher American Physical Society
URI <https://doi.org/10.1103/PhysRevLett.122.081804>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2405>
Date of Publication 01-03-2019

Author(s) Hoang, D. N.; SHWETA, A. et al.
Title Radio observations of the merging galaxy cluster Abell 520
Citation Astronomy & Astrophysics, 622.
Publisher EDP Sciences
URI <https://doi.org/10.1051/0004-6361/201833900>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2378>
Date of Publication 19-02-2019

Author(s) Kilgour, Michae; AGARWALLA, BIJAY KUMAR; Segal, Dvira
Title Path-integral methodology and simulations of quantum thermal transport: Full counting statistics approach
Citation Journal of Chemical Physics, 150(8).
Publisher American Institute of Physics
URI <https://doi.org/10.1063/1.5084949>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/2394>
Date of Publication 27-02-2019

Author(s) MALVIMAT, VINAY; Mondal, Sayid; Paul, Boudhayan; Sengupta, Gautam
Title Holographic entanglement negativity for disjoint intervals in AdS₃/CFT₂
Citation European Physical Journal C, 79(3).
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Author(s) ROY, BIBHISAN; REDDY, MALLU CHENNA; PANJA, SOUMENDRA NATH; HAZRA, PARTHA
Title Strategy to Mechanical Activation of Centrosymmetrically Packed Organic Luminogens
Citation Journal of Physical Chemistry C, 123(6), 3848-3854.
Publisher American Chemical Society
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