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Monthly Bulletin of Publications:
Faculty, Scientists and Students of IISER Pune.
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Book

Editor(s)	Boukherroub, Rabah; OGALE, SATISHCHANDRA; Robertson, Neil
Book Title	Nanostructured Photocatalysts
Publisher	Elsevier B.V.
ISBN No.	9780128178379; 9780128178362
URI	https://www.elsevier.com/books/nanostructured-photocatalysts/boukherroub/978-0-12-817836-2
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4823
Date of Publication	2020-06

BIOLOGY

Author(s)	Chatterjee, Payel; Mohan, Umesh; KRISHNAN, ANAND; Sane, Sanjay P.
Title	Evolutionary constraints on flicker fusion frequency in Lepidoptera
Citation	Journal of Comparative Physiology A.
Publisher	Springer
URI	https://doi.org/10.1007/s00359-020-01429-3
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4845
Date of Publication	2020-06

Author(s)	DEVANI, RAVI SURESH; KUTE, APURVA; JOHN, SHEEBA; Adhikari, Supriya; Sinha, Sangram; BANERJEE, ANJAN KUMAR
Title	Development of a Virus-Induced Gene Silencing System for Dioecious Cocciniagrandis
Citation	Molecular Biotechnology.
Publisher	Springer
URI	https://doi.org/10.1007/s12033-020-00259-7
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4848
Date of Publication	2020-06

Author(s)	GANGULY, S.; BARUA, DEEPAK
Title	High herkogamy but low reciprocity characterizes isoplethic populations of Jasminum malabaricum, a species with stigma-height dimorphism
Citation	Plant Biology.
Publisher	Wiley
URI	https://doi.org/10.1111/plb.13127
DR URI	http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4847
Date of Publication	2020-06

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Author(s) Katwate, Unmesh; Knight, J. D. Marcus; Anoop, V. K.; Raghavan, Rajeev; DAHANUKAR, NEELESH
Title Three new species of filament barbs of the genus Dawkinsia (Teleostei: Cyprinidae) from the Western Ghats of India
Citation Vertebrate Zoology, 70(2), 207-233.
Publisher Senckenberg Gesellschaft für Naturforschung
URI <https://doi.org/10.26049/VZ70-2-2020-08>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4824>
Date of Publication 2020-05

Author(s) PATTA, INDUMATHI; MADHOK, AYUSH; KHARE, SATYAJEET; Gottimukkala, Kamalvishnu P.; Verma, Anjali; Giri, Shilpi; Dandewad, Vishal; Seshadri, Vasudevan; Lal, Girdhari; Misra-Sen, Jyoti; GALANDE, SANJEEV
Title Dynamic Regulation of Chromatin Organizer SATB1 via TCR-induced Alternative Promoter Switch During T-cell Development
Citation Nucleic Acids Research, 48(11), 5873-5890.
Publisher Oxford University Press
URI <https://doi.org/10.1093/nar/gkaa321>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4652>
Date of Publication 2020-06

Author(s) SINGH, SHUBHAM; JOSHI, ALAUMY; KAMAT, SIDDHESH S.
Title Mapping the Neuroanatomy of ABHD16A, ABHD12, and Lysophosphatidylserines Provides New Insights into the Pathophysiology of the Human Neurological Disorder PHARC
Citation Biochemistry, 59(24), 2299-2311.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.biochem.0c00349>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4654>
Date of Publication 2020-05

Author(s) Taneja, Anjali; SHASHIDHARA, L. S.; Bhattacharya, Alok
Title Rare diseases in India: time for cure-driven policy initiatives and action
Citation Current Science, 118(10), 1500-1506.
Publisher Indian Academy of Sciences
URI <https://www.currentscience.ac.in/Volumes/118/10/1500.pdf>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4688>
Date of Publication 2020-05

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CHEMISTRY

Author(s) PANDEY, SHALINI; PATIL, SOHAN; BALLAV, NIRMALYA; Basu, Sudipta
Title Spatial targeting of Bcl-2 on endoplasmic reticulum and mitochondria in cancer cells by lipid nanoparticles
Citation Journal of Materials Chemistry B, 8(19), 4259-4266.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D0TB00408A>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4825>
Date of Publication 2020-05

Author(s) REDDY, CHENNAKESAVA; SHAIKH, JAVED Y.; BHAT, RAMAKRISHNA G.
Title Access to Hetero-Benzyl Scaffolds via Transient-Ligand-Enabled Direct γ -C(sp³)-H Arylation of 3-Methylheteroarene-2-Carbaldehydes
Citation Journal of Organic Chemistry, 85(11), 6924-6934.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.joc.0c00154>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4844>
Date of Publication 2020-04

Author(s) ROY, DEBASHREE; Xu, Yi; RAJENDRA, RANGUWAR; Wu, Lin; Bai, Ping; BALLAV, NIRMALYA
Title Gold Nanoearbuds: Seed-Mediated Synthesis and the Emergence of Three Plasmonic Peaks
Citation Journal of Physical Chemistry Letters, 11(9), 3211-3217.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.jpcllett.0c00838>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4657>
Date of Publication 2020-04

Author(s) ROY, PRADYUT; DEVATHA, GAYATHRI; ROY, SOUMENDU; RAO, ANISH; PILLAI, PRAMOD P.
Title Electrostatically Driven Resonance Energy Transfer in an All-Quantum Dot Based Donor-Acceptor System
Citation Journal of Physical Chemistry Letters, 11, 5354-5360.
Publisher American Chemical Society
URI <https://doi.org/10.1021/acs.jpcllett.0c01360>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4849>
Date of Publication 2020-06

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Author(s) VIJAYAKANTH, THANGAVEL; Ram, Farsa; Praveenkumar, Balu; Shanmuganathan, Kadiravan; BOOMISHANKAR, RAMAMOORTHY
Title Piezoelectric Energy Harvesting from a Ferroelectric Hybrid Salt $[\text{Ph}_3\text{MeP}]_4[\text{Ni}(\text{NCS})_6]$ Embedded in a Polymer Matrix
Citation Angewandte Chemie, 132(26), 10454-10459.
Publisher Wiley
URI <https://doi.org/10.1002/ange.202001250>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4851>
Date of Publication 2020-06

Mathematics

Author(s) Adler, Jeffrey D.; MISHRA, MANISH
Title Self-Dual Cuspidal Representations
Citation Represent Theory, 24, 210-228.
Publisher American Mathematical Society
URI <https://doi.org/10.1090/ert/541>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4829>
Date of Publication 2020-06

Author(s) Berchio, Elvise; Ganguly, Debdeep; ROYCHOWDHURY, PRASUN
Title On some strong Poincaré inequalities on Riemannian models and their improvements
Citation Journal of Mathematical Analysis and Applications, 490(1).
Publisher Elsevier B.V.
URI <https://doi.org/10.1016/j.jmaa.2020.124213>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4689>
Date of Publication 2020-10

Author(s) BHAGWAT, CHANDRASHEEL; FATIMA, AYESHA
Title On the length spectra of simple regular periodic graphs
Citation Journal of the Ramanujan Mathematical Society, 35(2), 139-147.
Publisher Ramanujan Mathematical Society
URI <http://www.mathjournals.org/jrms/2020-035-002/2020-035-002-003.html>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4827>
Date of Publication 2020-06

Author(s) BISWAS, ANUP; Lőrincz, József
Title Ambrosetti-Prodi Type Results for Dirichlet Problems of Fractional Laplacian-Like Operators
Citation Integral Equations and Operator Theory, 92.
Publisher Springer
URI <https://doi.org/10.1007/s00020-020-02584-7>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4850>
Date of Publication 2020-06

Author(s) PISOLKAR, SUPRIYA
Title Morphisms between two constructions of witt vectors of non-commutative rings
Citation Proceedings of the American Mathematical Society, 148(7), 2835-2842.
Publisher American Mathematical Society
URI <https://doi.org/10.1090/proc/14992>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4682>
Date of Publication 2020-07

Physics

Author(s) Ben Ltaief, L.; MANDAL, S. et al.
Title Electron transfer mediated decay of alkali dimers attached to Henanodroplets
Citation Physical Chemistry Chemical Physics, 22(16), 8557-8564.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D0CP00256A>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4826>
Date of Publication 2020-04

Author(s) Bhardwaj, Akanksha; Das, Arindam; Konar, Partha; THALAPILLIL, ARUN
Title Looking for minimal inverse seesaw scenarios at the LHC with jet substructure techniques
Citation Journal of Physics G-Nuclear and Particle Physics, 47(7).
Publisher IOP Publishing
URL <https://doi.org/10.1088/1361-6471/ab7769>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4841>
Date of Publication 2020-07

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Author(s) BISWAS, ABHIJIT; SWARNKAR, ABHISHEK; PANDEY, PADMINI; KOUR, PRACHI; PARMAR, SWATI; OGALE, SATISHCHANDRA
Title Dynamics of Photo-Generated Carriers across the Interface between CsPbBr₃ Nanocrystals and Au-Ag Nanostructured Film, and Its Control via Ultrathin MgO Interface Layer
Citation ACS Omega, 5(21), 11915-11922.
Publisher American Chemical Society
URL <https://doi.org/10.1021/acsomega.9b03817>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4843>
Date of Publication 2020-05

Author(s) CMS collaboration; Sirunyan, A. M.; DUBE, S.; HEGDE, V.; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S.
Title Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on anomalous quartic couplings
Citation Journal of High Energy Physics, 2020(06).
Publisher Springer
URL [https://doi.org/10.1007/JHEP06\(2020\)076](https://doi.org/10.1007/JHEP06(2020)076)
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4852>
Date of Publication 2020-06

Author(s) CMS Collaboration; Sirunyan, A.M.; DUBE, S.; KANSAL, B.; KAPOOR, A.; KOTHEKAR,
Title Determination of the strong coupling constant $\alpha_S(m_Z)$ from measurements of inclusive
Citation Journal of High Energy Physics, 2020(06).
Publisher Springer
URL [https://doi.org/10.1007/JHEP06\(2020\)018](https://doi.org/10.1007/JHEP06(2020)018)
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4842>
Date of Publication 2020-06

Author(s) CMS Collaboration; Sirunyan, A.M.; CHAUHAN, S.; DUBE, S.; HEGDE, V.; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S. et al
Title Calibration of the CMS hadron calorimeters using proton-proton collision data at $\sqrt{s} = 13$ TeV
Citation Journal of Instrumentation, 15.
Publisher IOP Publishing
URL <https://doi.org/10.1088/1748-0221/15/05/P05002>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4687>
Date of Publication 2020-05

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 Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton-proton collisions at $\sqrt{s}=13$ TeV
Citation European Physical Journal C, 80(5).
Publisher Springer
URL <https://doi.org/10.1140/epjc/s10052-020-7858-1>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4686>
Date of Publication 2020-05

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 an excited lepton that decays via a contact interaction to a lepton and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV
Citation Journal of High Energy Physics, 2020(5).
Publisher Springer
URL [https://doi.org/10.1007/JHEP05\(2020\)052](https://doi.org/10.1007/JHEP05(2020)052)
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4656>
Date of Publication 2020-05

Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, S.; HEGDE, V.; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S. et al.
Title Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment
Citation Journal of High Energy Physics, 2020(5).
Publisher Springer
URL [https://doi.org/10.1007/JHEP05\(2020\)032](https://doi.org/10.1007/JHEP05(2020)032)
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4659>
Date of Publication 2020-05

Author(s) CMS Collaboration; Sirunyan, A. M.; DUBE, S.; HEGDE, V.; KANSAL, B.; KAPOOR, A.; KOTHEKAR, K.; PANDEY, S.; RANE, A.; RASTOGI, A.; SHARMA, S. et al.
Title Measurement of the Jet Mass Distribution and Top Quark Mass in Hadronic Decays of Boosted Top Quarks in pp Collisions at $\sqrt{s} = 13$ TeV
Citation Physical Review Letters, 124(20).
Publisher American Physical Society
URL <https://doi.org/10.1103/PhysRevLett.124.202001>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4658>
Date of Publication 2020-05

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Author(s) MANDAL, S.; Gopal, R.; BAPAT, BHAS et al.
Title Penning spectroscopy and structure of acetylene oligomers in He nanodroplets
Citation Physical Chemistry Chemical Physics, 22(18), 10149-10157.
Publisher Royal Society of Chemistry
URI <https://doi.org/10.1039/D0CP00689K>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4690>
Date of Publication 2020-04

Author(s) MUKHI, SUNIL; PODDAR, RAHUL; SINGH, PALASH
Title Rational CFT with three characters: the quasi-character approach
Citation Journal of High Energy Physics, 2020(5).
Publisher Springer
URL [https://doi.org/10.1007/JHEP05\(2020\)003](https://doi.org/10.1007/JHEP05(2020)003)
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4655>
Date of Publication 2020-05

Author(s) Nidhankar, Aakash D.; Goudappagouda; Kumari, Divya S. Mohana; CHAUBEY, SHAIENDRA KUMAR; Nayak, Rashmi; Gonnade, Rajesh G.; KUMAR, G. V. PAVAN; Krishnan, Retheesh; Babu, Sukumaran Santhosh
Title Self-Assembled Helical Arrays for the Stabilization of the Triplet State
Citation Angewandte Chemie-International Edition.
Publisher Wiley
URL <https://doi.org/10.1002/anie.202005105>
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Date of Publication 2020-05

Author(s) NIRANJAN, ANKITA; Li, Weibin; NATH, REJISH
Title Landau-Zener transitions and adiabatic impulse approximation in an array of two Rydberg atoms with time-dependent detuning
Citation Physical Review A, 101(6).
Publisher American Physical Society
URL <https://doi.org/10.1103/PhysRevA.101.063415>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4846>
Date of Publication 2020-06

Author(s) PAL, SOHAM; SARYAL, SUSHANT; Segal, Dvira; MAHESH, T. S.; AGARWALLA, BIJAY
Title Experimental study of the thermodynamic uncertainty relation
Citation Physical Review Research, 2(2).
Publisher American Physical Society
URL <https://doi.org/10.1103/PhysRevResearch.2.022044>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4653>
Date of Publication 2020-05

Author(s) PANDEY, SHUBHAM; SHARMA, SEEMA; Lobanov, A.
Title Performance of CMS High Granularity Calorimeter prototypes in beam test experiments
Citation Journal of Instrumentation, 15.
Publisher IOP Publishing
URL <https://doi.org/10.1088/1748-0221/15/06/C06028>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4653>
Date of Publication 2020-06

Author(s) SHARMA, VANDANA; PAUL, DIPTABRATA; CHAUBEY, SHAILENDRA K.; TIWARI, SUNNY; KUMAR, G. V. PAVAN
Title Large-scale optothermal assembly of colloids mediated by a gold microplate
Citation Journal of Physics-Condensed Matter, 32(32).
Publisher IOP Publishing
URL <https://doi.org/10.1088/1361-648X/ab8552>
DR URI <http://dr.iiserpune.ac.in:8080/xmlui/handle/123456789/4680>
Date of Publication 2020-06
