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Mathematical method of Physics

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| Selected Topics in Mathematical Physics | https://www.youtube.com/watch?v=b5VUnapu-gs&list=PLbMVogVj5nJRhI_6TUGChpnt2Lg0AZvZu | Prof. V. Balakrishnan | IIT Madras |
| NOC:Theory of groups for physics applications | https://www.youtube.com/watch?v=jO-gTF1N6Gk&list=PLOzRYVm0a65dCfHkBa2BeOreppzcfpgv | Prof. Urjit A. Yajnik | IIT Bombay |
| NOC:Group Theory methods in Physics | https://www.youtube.com/watch?v=nzmJb7KITxc&list=PLO_zRYVm0a65dGef0BEA_CWbVCO6BtMZhE | Prof. Ramadevi | IIT Bombay |
| NOC:Mathematics methods in Physics-I | https://www.youtube.com/watch?v=ew3vYplaM7Y&list=PL_DZKFoLcAWeVBBK-kXa4HLxhChi-kH3q4 | Prof. Samudra Roy | IIT Kharagpur |
| ENGINEERING PHYSICS | https://www.youtube.com/watch?v=fIVlzKB4bBQ&list=PL_bMVogVj5nJQginHCN9L4QkINYQomSod | Dr. M.K. Srivastava | IIT Roorkee |
| Mathematics -Elementary Numerical Analysis | https://www.youtube.com/watch?v=6iYsO0NJMiA&list=PL_bMVogVj5nJTtsC5V9n452YKc4mJAhrmm | Prof. Rekha P. Kulkarni | IIT Bombay |
| NUMERICAL METHOD-I | https://www.youtube.com/watch?v=zjyR9e-N1D4&list=PLCA944605A8EDE42A | Prof. P.B Sunil Kumar | IIT Madras |
| NUMERICAL METHOD-II | https://www.youtube.com/watch?v=88ys5ZIoISg&list=PL_E313980EF23CA6E | Prof. P.B Sunil Kumar | IIT Madras |
| Physical Applications of Stochastic Processes | https://www.youtube.com/watch?v=6x1pL9Yov1k&list=PLb_MVogVj5nJQo8D9D-D6IMqh4FJbPe_f | Prof. V. Balakrishnan | IIT Madras |
| Core - Numerical Methods and Computation | https://www.youtube.com/watch?v=88ys5ZIoISg&list=PL_E313980EF23CA6E | Prof. S.R.K. Iyengar | IIT Delhi |
| Engineering Mathematics II | https://www.youtube.com/watch?v=ZLbnIdAh0s&list=PLbRMhDVUMnge3mm2QvqXM3gHwx0Mt7W8S | Prof. Jitendra Kumar | IIT Kharagpur |
| Mathematics - Probability and statistics | https://www.youtube.com/watch?v=VVYLpmKRFQ8&list=PLbMVogVj5nJQrbAweTVvnH6-vG5A4aN5 | Dr. Somesh Kumar | IIT Kharagpur |
| Engineering Mathematics I | https://www.youtube.com/watch?v=4QFsiXfgbzM&list=PL_bRMhDVUMngeVrxtbBz-n8HvP8KAWBpI5 | Prof. Jitendra Kumar | IIT Kharagpur |
| NOC:Numerical Methods And Simulation Techniques For Scientists And Engineers | https://www.youtube.com/watch?v=1GvcLsaXMjo&list=PL_wdnzlV3ogoUY43XoMwVVCWDSImC9mVQB | Dr. Saurabh Basu | IIT Guwahati |

Classical Mechanics

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| Topics in Nonlinear Dynamics | https://www.youtube.com/watch?v=SjTfNFso4mE&list=PLb_MVogVj5nJQqNx0ElSk3Ip04Ofg7B22W | Prof. V. Balakrishnan | IIT Madras |
| Special>Select Topics in Classical Mechanics | https://www.youtube.com/watch?v=-I-3-Eb_i3w&list=PLB368471AD70B8A6B | Prof. P.C. Deshmukh | IIT Madras |
| Special Theory of Relativity | https://www.youtube.com/watch?v=49vEaNa1XKo&list=PL_bMVogVj5nJQlnU_xlAdGS2220biQma1x | Prof. Shiva Prasad | IIT Bombay |
| Classical Field Theory | https://www.youtube.com/watch?v=fJjsX4ektBA&list=PLb_MVogVj5nJRYLTwyuuusiiFchFU-WvEIW | Prof. Suresh Govindarajan | IIT Madras |

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| Theoretical Mechanics | https://www.youtube.com/watch?v=XMQjOr1EpgE&list=PLwdnzIV3ogoXUbQmP-T2gPhYXeEcP6U8 | Prof. Charudatt kadolkar | IIT Guwahati |
| Core- Classical physics | https://www.youtube.com/watch?v=Q6Gw08pwhws&list=PL5E4B56893588CBA8 | Prof. V. Balakrishnan | IIT Madras |
| NOC:Engineering Mechanics | https://www.youtube.com/playlist?list=UUMT4rd-YKvyDzP-YUhYDzG&playnext=1&index=1 | Prof. Manoj K Harbola | IIT Kanpur |
| NOC:Classical mechanics: from newtonian to lagrangian formulation | https://www.youtube.com/watch?v=s2RmqPlfETc&list=PLQD2hFuUoZro6tM-LqiRpAmcBD3_8bK0Q | Prof. Debamalya Banerjee | IIT Kharagpur |
| Electromagnetic theory | | | |
| Electromagnetic Theory | https://www.youtube.com/watch?v=NED2CI8u9Q0&list=PLbMVogVj5nJSKsAlDEbNwKZY6zD0EbGMF | Prof. D.K. Ghosh | IIT Bombay |
| Electromagnetic Theory | https://www.youtube.com/watch?v=pGdr9WLto4A&list=PL16m4jcR_DbOx6s2toprJQx1MORqPa9rG | Dr. Harishankar Ramachandran | IIT Madras |
| Electromagnetic theory | https://www.youtube.com/watch?v=G5P6dInMTFg&list=PLuv3GM6-gsE3-hVNaw-YEb7EeY5XVPZdz | Prof. Pradeep kumar K | IIT Kanpur |
| Transmission Lines and EM Waves | https://www.youtube.com/watch?v=0OwmYAljz4A&list=PL0925FD10648D664E | Pro. C. Deep | IIT Bombay |
| Electromagnetism | https://www.youtube.com/watch?v=0rOOiKCLGew&list=PLLVSQuGLY5vH1IUT0Y6lPkPZWYGFBAx0r | Dr. Nirmal Ganguli | IISER Bhopal |
| NOC:Introduction to Electromagnetic Theory | https://www.youtube.com/playlist?list=UUUpjMOBurUQFPQ7QEuwNCnmw&playnext=1&index=1 | Prof. Manoj K Harbola | IIT Kanpur |
| Quantum Mechanics | | | |
| Quantum Electronics | https://www.youtube.com/watch?v=3yUmkxjhz6I&list=PL641752BF0D96C2A6 | Prof. K. Thyagarajan | IIT Delhi |
| Relativistic Quantum Mechanics | https://www.youtube.com/watch?v=77A9xWz_ugo&list=PLbMVogVj5nJTDmhThY9xu2Tvg0u1RPuxO | Prof. Apoorva D Patel | IISc Bangalore |
| NOC:Advanced Quantum Mechanics with Applications | https://www.youtube.com/watch?v=iW-k3Hphbh4&list=PLwdnzIV3ogoUfl5wrKOiYVTThdFAriFji | Dr. Saurabh Basu | IIT Guwahati |
| Quantum Mechanics and Applications | https://www.youtube.com/watch?v=AN8hrl7q3m0&list=PLbMVogVj5nJSkpUzNjD9D-QVHeRtBT2fv | Prof. Ajoy Ghatak | IIT Delhi |
| Quantum Mechanics I | https://www.youtube.com/watch?v=pGerRhxNQJE&list=PLbMVogVj5nJTXGlgqyzpUqozrU55oRX-H | Prof. S. Lakshmi Bala | IIT Madras |
| Quantum Field Theory | https://www.youtube.com/watch?v=IGHvf9BwkDY&list=PLbMVogVj5nJQ3slQodXQ5cSEtcp4HbNFc | Dr. Prasanta Tripathy | IIT Madras |
| Quantum mechanics | https://www.youtube.com/watch?v=AEdn_NiWN0&list=PLLozRYVm0a65el7XWKqjwo3h-pDLJSWmw | Prof. P. Ramadevi | IIT Bombay |
| Quantum mechanics | https://www.youtube.com/watch?v=TcmGYe39XG0&list=PL0F530F3BAF8C6FCC | Prof. V. Balakrishnan | IIT Madras |
| Quantum Electronics | https://www.youtube.com/watch?v=3yUmkxjhz6I&list=PL641752BF0D96C2A6 | Prof. K. Thyagarajan | IIT Delhi |
| QUANTUM MECHANICS | https://www.youtube.com/watch?v=jFWuAQRZPjQ&list=PLWweJWdB_GuiSnGkAafMpzzDBvTHg02At | Prof. H.C. Verma | IIT Kanpur |
| NOC:Introductory Quantum Mechanics | https://www.youtube.com/watch?v=fn85jYHNksw&list=PLZzZEYRnUYiAhxS2p_VphEO6MXk-Rz9NF | Prof. Manoj K Harbola | IIT Kanpur |
| Statistical Mechanics | | | |
| Thermodynamics | https://www.youtube.com/watch?v=WgAaVHWEj3w&list=PLp6ek2hDcoNDSxcDCCoOb0BEgVKIwWVZ | Prof. S.R. Kale | IIT Delhi |
| Thermodynamics: Classical to statistical | https://www.youtube.com/watch?v=txOnRP5hwCE&list=PLLwdnzIV3ogoX-WIPb5DnmimmUOVAgI5wrq | Prof. SANDEEP PAUL | IIT Guwahati |

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| Advanced Thermodynamics | https://www.youtube.com/watch?v=J_dRoslo998&list=PLwdnzlV3ogoU8iUrmyM6mmgQJQuqD_FW | Prof. Nanda Kishore | IIT Guwahati |
| NOC:Statistical Mechanics | https://www.youtube.com/watch?v=8xRFqrNyJCg&list=PLyqSpQzTE6M9iXvWVCopr67kKt61ntzll | Prof. Ashwin Joy | IIT Madras |
| Nonequilibrium Statistical Mechanics | https://www.youtube.com/watch?v=SjTfNFso4mE&list=PLbMVogVj5nJQqNx0ElSk3Ip04Ofg7B22W | Prof. V. Balakrishnan | IIT Madras |
| NOC:Introduction To Statistical Mechanics | https://www.youtube.com/watch?v=iud7fzXPJUs&list=PLwdnzlV3ogoXkmIlyZceK111IMjCgS-b7 | Prof. Girish S. Setlur | IIT Guwahati |
| Electronics | | | |
| Electronics | https://www.youtube.com/watch?v=g7vYop_46tU&list=PL708EEA8184EA8F53 | Prof. D.C. Dube | IIT Delhi |
| NOC:Experimental Physics I | https://www.youtube.com/watch?v=m6E1NN4A-9s&list=PLbRMhDVUMngcHCX4U7syOH0mnMW7f3Z2g | Prof. Amal Kumar Das | IIT Kharagpur |
| NOC:Experimental Physics - II | https://www.youtube.com/watch?v=q5ol5jvSe1o&list=PLbRMhDVUMngcntq74GxOciINQGDyApYLX | Prof. Amal Kumar Das | IIT Kharagpur |
| NOC:Experimental Physics III | https://www.youtube.com/watch?v=xa2Q5AuBsmY&list=PLbRMhDVUMngfi3i7kQA5UMiCKqPI_pc8d | Prof. Amal Kumar Das | IIT Kharagpur |
| Semiconductor Optoelectronics | https://www.youtube.com/watch?v=N01BYteinzE&list=PLbMVogVj5nJSvhvgcBfT3e6HFFuhq2xqz | Prof. M. R. Shenoy | IIT Delhi |
| NOC:Optical Sensors | https://www.youtube.com/watch?v=hsGHQUREfss&list=PLLy_2iUCG87DLpZxM4GgNT3lJOXfxK_rM | Prof. Sachin Kumar Srivastava | IIT Roorkee |
| Electronics - Digital Circuits and System | https://www.youtube.com/watch?v=CeD2L6KbtVM&list=PL803563859BF7ED8C | Prof. S. Srinivasan | IIT Madras |
| Electrical- introduction to electronic circuits | https://www.youtube.com/watch?v=wE8WI2ZOG3c&list=PLbMVogVj5nJSNQjPsqYnPFfroE1coxysA | Dr. S.C. Dutta Roy | IIT Delhi |
| Electrical-Analog Electronic Circuits | https://www.youtube.com/watch?v=Xr3KPWxexsk&list=PLbMVogVj5nJTZtx8sPWy6J0c00DLRIsdK | Dr. Pradip mandal | IIT Kharagpur |
| Digital Electronic Circuits | https://www.youtube.com/watch?v=oNh6V91zdPY&list=PLbRMhDVUMnge4gDT0vBWjCb3Lz0HnYKkX | Prof. Guatam Saha | IIT Kharagpur |
| Electronics - Solid State Devices | https://www.youtube.com/watch?v=Kp-jS6NHsB8&list=PLF178600D851B098F | Dr. S. Karmalkar | IIT Madras |
| Fundamentals of semiconductor devices | https://www.youtube.com/watch?v=h0Y9jDKqScQ&list=PLgMDNELGJ1CaNcuuQv9xN07ZWkXE-wCGP | Prof. Digbijoy N. Nath | IISc Bangalore |
| Atomic and Molecular Physics | | | |
| NOC:Atomic and Molecular Physics | https://www.youtube.com/watch?v=SCmtEhGVhSM&list=PLLupNYX6-k9ggRRMxDqV9hxY1p4dC-QGrg7 | Prof. Amal Kumar Das | IIT Kharagpur |
| Special>Select Topics in Atomic Physics | https://www.youtube.com/watch?v=0zDZqjqGtI4&list=PLbMVogVj5nJQAcTv17ETSh5-GNDbAo6BM | Prof. P.C. Deshmukh | IIT Madras |
| Solid State Physics | | | |
| NOC:Electronic Theory of Solids | https://www.youtube.com/watch?v=7LL2_qTuiNU&list=PLbRMhDVUMnge2V2zEs9GvgAATonkSIK59 | Prof. Arghya Taraphder | IIT Kharagpur |
| Condensed Matter Physics | https://www.youtube.com/watch?v=_Ckh-60B6LY&list=PLbMVogVj5nJRjLrXp3kMtrIO8kZl1D1jp | Prof. G. Rangarajan | IIT Madras |
| NOC:Solid state physics | https://www.youtube.com/watch?v=Ofzd2ZqFvjo&list=PLADLRin7kNjG1Dlna9MDA53CMKFHPSi9m | Prof. Amal Kumar Das | IIT Kharagpur |
| NOC:Introduction to Solid State Physics | https://www.youtube.com/watch?v=xTNkipm2bZc&list=PLFW6lRTa1g83HGEihgwcy7KeTLUuBu3WF | Prof. Satyajit Banerjee, Prof. Manoj K Harbola | IIT Kanpur |

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| NOC:Advanced Condensed Matter Physics | https://www.youtube.com/watch?v=4WC_5soO-Oc&list=PLml6ZBDe3VUwl49j-g390BCzfC1LXk0xg | Dr. Saurabh Basu | IIT Guwahati |
| NOC:A brief course on Superconductivity | https://www.youtube.com/watch?v=SHeGV-sezNI&list=PLwdnzlV3ogoU1lvWa--5u9iGVimN2uT3h | Dr. Saurabh Basu | IIT Guwahati |
| Nuclear and Particle Physics | | | |
| NOC:Nuclear and Particle Physics | https://www.youtube.com/watch?v=H7OipY8RzX0&list=PL0b6maW-5d1fvnUXykaaD0JPjEB0pTDF9 | Dr. P. Poulose | IIT Guwahati |
| Nuclear Physics: Fundamentals and Applications | https://www.youtube.com/watch?v=josqjcH79PE&list=PLbMVogVj5nJRvg-w3zway7k3GzmUDte3a | Prof. H.C. Verma | IIT Kanpur |
| NOC:Physics of Biological Systems | https://www.youtube.com/watch?v=A-RI45pjHo&list=PLOzRYVm0a65f8cS3w9fWRiCS9PMPt tbJW | Prof. Mithun Mitra | IIT Bombay |
| NUCLEAR REACTORS AND SAFETY- AN INTRODUCTION | https://www.youtube.com/watch?v=vQ5HrubRYVo&list=PLbMVogVj5nJR6nZje9ewAeZ7lvnoVV1X3 | Dr.G.Vaidyanathan | IIT Madras |
| NOC:Solar Photovoltaics Fundamentals, Technology And Applications | https://www.youtube.com/watch?v=5zAQot4pKgU&list=PLLy_2iUCG87Dxsmc322YcSuNI_KCEbgPI | Prof. Soumitra SataPathi | IIT Roorkee |
| NOC:Computational Physics | https://www.youtube.com/watch?v=axnFylcoP5Y&list=PLySpQzTE6M8Lg4pPC2KKutByiFCR9kV0 | Prof. Prasenjit Ghosh, Prof. Apratim Chatterji | IIT Madras |
| Optics | | | |
| NOC:Fiber Optics | https://www.youtube.com/watch?v=9seDKvba0HU&list=PLKYiMrD6Uzuz9eK2lZr1rLb3jOnMzsjpV | Prof. Vipul Rastogi | IIT Roorkee |
| NOC:Introduction to Non-linear Optics and its Applications | | Prof. Samudra Roy | IIT Kharagpur |
| Waves Oscillations | | | |
| NOC: Mechanics, heat oscillations and waves | https://www.youtube.com/watch?v=V23NFkO9QA&list=PL4NqSBWEKZtesqC_-mp3iuGpX8RQ5P1Ps | Prof. V. Balakrishnan | IIT Madras |
| NOC:Waves and Oscillations | https://www.youtube.com/watch?v=xoJWoMQwTAw&list=PLyqSpQzTE6M9X7oRXliYM8t0aaR_N0Csd | Prof. M. S. Santhanam | IIT Madras |
| Plasma Physics: Fundamentals and Applications | | | |
| Plasma Physics: Fundamentals and Applications | https://www.youtube.com/watch?v=wO2HS7hcSb8&list=PLbMVogVj5nJS4KY5UFWBLSu7kMzPbL35T | Prof. Vijayshri, Prof. V.K. Tripathi | IIT Delhi |
| Others | | | |
| Astrophysics & Cosmology | https://www.youtube.com/watch?v=vDv3iSMdYyc&list=PLXHedl-xbyr8cxGLOUoy-m-1QX_slzaRF | Prof. S. Bharadwaj | IIT Kharagpur |
| NOC:Physics of Turbulence | https://www.youtube.com/watch?v=T1b0zIYCcsAM&list=PLFW6lRTa1g82j4KbsewjXTh7J5foZ8iKa | Prof. Mahendra Verma | IIT Kanpur |
| NOC:Introduction_to_Atmospheric and Space Sciences | https://www.youtube.com/watch?v=9YOhWw5at6A&list=PLLy_2iUCG87C37ThJ4x4VgwDkMLupSBFy | Prof. M V Sunil Krishna | IIT Roorkee |

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