

CONTACT INFORMATION	Chennai Mathematical Institute Plot No. H1, SIPCOT IT Park Siruseri, Kelambakkam Pin Code: 603103, Chennai, India.	<i>Phone:</i> (+91)-9567320446 <i>E-mail:</i> vishnu@cmi.ac.in vishnutr1992@gmail.com <i>Website:</i> www.cmi.ac.in/~vishnu
RESEARCH INTERESTS	Theoretical and Mathematical Physics: Quantum field theory, Integrability in classical and quantum mechanical systems and field theories, Dynamical systems.	
EDUCATION	Ph.D <i>Chennai Mathematical Institute</i> , Advisor: <i>Prof. Govind S Krishnaswami</i> . August 2016-present	<i>August 2016-present</i>
	Masters <i>Chennai Mathematical Institute</i> , M.Sc. in Physics, Thesis Title: Integrability and inverse scattering transform for the KdV equation , Advisor: <i>Prof. Govind S Krishnaswami</i> .	<i>August 2014-July 2016</i>
	Masters <i>University of Hyderabad</i> , M.Sc. in Physics, Thesis Title: Study of Neutrino mass models , Advisor: <i>Prof. Rukmani Mohanta</i> .	<i>July 2012-May 2014</i>
	Undergraduate <i>St. Joseph's College, Devagiri</i> , B.Sc. Physics, Thesis Title: Spectroscopic studies of the twin quasar 0957+561 - The first gravitational lens (Group project) , Advisor: <i>Prof. S I Issac</i> .	<i>August 2009-July 2012</i>
PAPERS	<ul style="list-style-type: none"> • <i>Quantum Rajeev-Ranken model as an anharmonic oscillator</i>, Govind S Krishnaswami and T R Vishnu, Preprint in preparation (2021). • <i>The idea of a Lax pair-Part II: Continuum wave equations</i>, Govind S Krishnaswami and T R Vishnu, to appear in Resonance 26, 257 (2021). • <i>The idea of a Lax pair-Part I: Conserved quantities for a dynamical system</i>, Govind S Krishnaswami and T R Vishnu, Resonance 25, 1705 (2020). • <i>An introduction to Lax pairs and the zero curvature representation</i>, Govind S Krishnaswami and T R Vishnu, arXiv:2004.05791[nlin.SI]. • <i>Invariant tori, action-angle variables and phase space structure of the Rajeev-Ranken model</i>, Govind S Krishnaswami and T R Vishnu, J. Math. Phys. 60, 082902 (2019), arXiv:1906.03141[nlin.SI]. • <i>On the Hamiltonian formulation, integrability and algebraic structures of the Rajeev-Ranken model</i>, Govind S Krishnaswami and T R Vishnu, J. Phys. Commun. 3, 025005 (2019), arXiv:1804.02859 [hep-th]. 	
RESEARCH EXPERIENCE	<ul style="list-style-type: none"> • Two dimensional field theory, Partial differential equations, Poisson-Lie algebras, Inverse scattering, KdV equation, Lax pairs, r-matrices, Hamiltonian formulation, Integrability, Invariant tori and action-angle variables. 	
CONFERENCES AND SCHOOLS	<ul style="list-style-type: none"> • <i>XXXIII SERB Main school-Theoretical High Energy Physics</i>, 7-26 December, 2019, S.G.T.B. Khalsa College, University of Delhi. • <i>Young Researchers Integrability School and Workshop: A modern primer for 2D CFT</i>, 10-16 February 2019, Erwin Schrödinger international Institute of Mathematics and Physics, Vienna. • <i>Conference on Nonlinear Systems and Dynamics</i>, 11-14 October, 2018, Jawaharlal Nehru University - New Delhi. • <i>Integrable systems in Mathematics, Condensed Matter and Statistical Physics</i>, 16 July-10 August, 2018, International Center for Theoretical Sciences, Bangalore. 	
TALKS AND POSTERS	<ul style="list-style-type: none"> • Talk, <i>Dynamics and integrability of the Rajeev-Ranken model</i>, Chennai Strings Meeting, December 15, 2020, Institute of Mathematical Sciences (Webinar). 	

- Talk, *Integrability of a mechanical reduction of a dual to the principal chiral model*, National Symposium on Theoretical High Energy Physics, December 20, 2019, SGTB Khalsa College, University of Delhi.
- CMI Seminar, *On the Hamiltonian formulation and integrability of the Rajeev-Ranken model*, Chennai Mathematical Institute, March 20, 2019, Chennai.
- Poster presentation, *Hamiltonian dynamics and integrability of the Rajeev-Ranken model*, Conference on Nonlinear Systems and Dynamics, 11-14 October, 2018, Jawaharlal Nehru University, New Delhi.
- Poster presentation, *Hamiltonian dynamics and integrability of the Rajeev-Ranken model*, Integrable systems in Mathematics, Condensed matter and Statistical Physics, 16 July-10 August, 2018, International Center for Theoretical Sciences, Bangalore.

TEACHING

- Teaching assistant for the course on Thermal Physics, Course Instructor: Govind S Krishnaswami, Aug-Nov 2019, Chennai Mathematical Institute.
- Teaching assistant for the Workshop of the Academy of Physics Teachers, Kerala, Topic: Scattering in Quantum Mechanics, Course Instructor: Govind S Krishnaswami, 23-24 June, 2018, Christ College, Irinjalakuda.
- Teaching assistant for the course on Continuum Mechanics, Course Instructor: Govind S Krishnaswami, Jan-Apr 2018, Chennai Mathematical Institute.

INTERNSHIPS

Institute of Physics *May-June 2013*
 Students' summer visiting program (SSVP-2013)- A reading project on 'Neutrino oscillations' under the guidance of Prof. Pankaj Agarwal at IOP Bhubaneswar.

ACHIEVEMENTS

- 2012 - Reached among top 25 in all Kerala Physics Talent Search, conducted by Academy of Physics Teachers, (APT) Kerala.
- 2014 - Qualified Joint Entrance Screening Test (JEST).

REFERENCES

- (1) Prof. Govind S. Krishnaswami
 Professor, Chennai Mathematical Institute
govind@cmi.ac.in
- (2) Prof. V. V. Sreedhar
 Professor, Chennai Mathematical Institute
sreedhar@cmi.ac.in
- (3) Prof. Ghanashyam Date
 Adjunct Professor, Chennai Mathematical Institute
gdate@cmi.ac.in