

Masroor C. Pookkillath

PERSONAL DATA	Centre for Theoretical Physics and Natural Philosophy (NAS) Mahidol University, Nakhonsawan Campus. 402/1 Moo 5 Khaothong, Phayuha Khiri, Nakhonsawan, Thailand 60130. Email: masroor.cha@mahidol.ac.th , masroorcp@gmail.com .
RESEARCH INTERESTS	Dark Energy/Modified Gravity Theories, Test of Gravity, Tensions in Cosmology
EMPLOYMENT	Postdoctoral Fellow September 2022 - Present Centre for Theoretical Physics and Natural Philosophy, NAS, Mahidol University. Nakhonsawan , Thailand Postdoctoral Fellow October 2021 Yukawa Institute for Theoretical Physics, Kyoto University. Kyoto, Japan
EDUCATION	Ph.D. in Physics and Astronomy September 2021 Yukawa Institute for Theoretical Physics, Kyoto University. Kyoto, Japan Thesis: <i>Theoretical and Observational Constraints on the Cosmology of theories of Gravity</i> . Advisor: Prof. Antonio De Felice, Prof. Shinji Mukohyama. M.Sc.Physics September 2014 Mahatma Gandhi University. Kottayam, India Thesis: <i>Thermodynamics of Black-holes in Massive Gravity</i> . B.Sc.Physics March 2012 University of Calicut , Kerala, India. Thesis: <i>Photometric Identification of HII Region in SDSS</i>
AWARDS AND FELLOWSHIPS	Monbukagakusho:MEXT Scholarship 2018-2021 Awarded by Japanese government.
ORAL AND POSTER PRESENTATION	<i>Extended minimal theories of massive gravity.</i> April 23, 2023 ICTS, Bangalore, India (Invited Talk) <i>Extended minimal theories of massive gravity.</i> January 18-21, 2023 Testing gravity 2023 (Contributed Talk) SFU Harbour Center, Vancouver, Canada <i>VCDM and Cuscuton.</i> October 12, 2022 Department of Physics, Tokyo Institute of Technology (Invited Talk) Tokyo, Japan <i>VCDM: Minimal theory of gravity.</i> September 15 -18, 2022 NAS Workshop 2022 (Invited Talk) <i>Minimal theory of massive gravity and constraints on the graviton mass.</i> 11th Australasian conference on General Relativity February 2-4, 2022 and Gravitation (Contributed Talk) The 30th Workshop on General Relativity and December 6–10, 2021 Gravitation in Japan. (Contributed Talk)

8th Korea-Japan workshop on Dark Energy.	October 18–22, 2021 (Contributed Talk)
<i>Reduction of H_0 tension by means of $VCDM$</i> The JPS 2021 Autumn Meeting. Online virtual meeting by the Physical Society of Japan.	September 14–17, 2021 (Contributed Talk)
<i>Minimally Modified Gravity fitting Planck data better than ΛCDM</i> The Fourth Zeldovich virtual meeting. ICRANet and National Academy of Sciences of Belarus.	September 7–11, 2020 (Contributed Talk)
<i>Reducing the H_0 tension with generalized Proca theory</i> Vienna Summer School 2020 on Gravitational Quantum Physics, University of Vienna.	September 3–6, 2020 (Poster)
<i>Baryon Physics and Tight Coupling Approximation in Boltzmann Code</i> The 14th Kavli Asian Winter School on Strings, Particles and Cosmology Katahira Campus, Tohoku University, Japan.	January 13–22, 2020 (Poster)
<i>Baryon Physics and Tight Coupling Approximation in Boltzmann Code</i> The 29th Workshop on General Relativity and Gravitation in Japan Kobe University, Japan.	November 25–29, 2019 (Contributed Talk)
<i>Baryon Physics and Tight Coupling Approximation in Boltzmann Code</i> Cosmo'19, RWTH Aachen University, Germany.	September 2–6 2019 (Contributed Talk)

SYNERGETIC ACTIVITIES

Organizing workshop:

Organizer of workshop [Gravity: Current challenges in black hole physics and cosmology](#), June 20 – July 1, 2022.

Journals refereed: The European Physical Journal C

Public outreach: Talk on *Understanding our Universe: Current status*
MES Ponnani College, Ponnani, India, 27 June, 2022.

COMPUTER SKILLS

Operating System: Linux, Windows

Programming Language: Julia, Python, C, Groovy.

Others: Maple, Experienced in using Super Computer,
Mathematica (xAct, FeynArts), Redberry.

REFERENCES

- Antonio De Felice** E-mail: antonio.defelice@yukawa.kyoto-u.ac.jp
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Yukawa Institute for Theoretical Physics,
Kyoto University, Japan.
- Shinji Mukohyama** E-mail: shinji.mukohyama@yukawa.kyoto-u.ac.jp
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- Kazuya Koyama** E-mail: kazuya.koyama@port.ac.uk
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