

Guides on the IUT theory of Shinichi Mochizuki: reports, surveys, workshops materials, talks, lectures, videos

Published IUT papers

Inter-universal Teichmüller Theory, by Shinichi Mochizuki, Publications of RIMS, European Math Society Press, March 2021

Explicit estimates in inter-universal Teichmüller theory, by S. Mochizuki, I. Fesenko, Y. Hoshi, A. Minamide, W. Porowski, Kodai Math. J. 45(2022) 175-236

Reports

On the verification of inter-universal Teichmüller theory: a progress report (as of December 2013), by Shinichi Mochizuki

On the verification of inter-universal Teichmüller theory: a progress report (as of December 2014), by Shinichi Mochizuki

Brief report on the current situation surrounding Inter-universal Teichmüller theory (IUT), August 2023, by Shinichi Mochizuki

About the study of IUT, by Ivan Fesenko

Introductory and survey texts for mathematicians

Invitation to inter-universal Teichmüller theory (lecture note version), by Shinichi Mochizuki

A panoramic overview of inter-universal Teichmüller theory, Res. Inst. Math. Sci. (RIMS), Kyoto (2014), 301-345, by Shinichi Mochizuki

The mathematics of mutually alien copies: from gaussian integrals to inter-universal Teichmüller theory, Inter-universal Teichmüller Theory Summit 2016, RIMS Kokyuroku Bessatsu B84, Res. Inst. Math. Sci. (RIMS), Kyoto (2021) 23-192, by Shinichi Mochizuki

On the essential logical structure of inter-universal Teichmüller theory in terms of logical and " $\wedge$ " / logical or " $\vee$ " relations: Report on the occasion of the publication of the four main papers on inter-universal Teichmüller theory, by Shinichi Mochizuki

Arithmetic deformation theory via arithmetic fundamental groups and nonarchimedean theta functions, notes on the work of Shinichi Mochizuki, Europ. J. Math. (2015) 1:405-440, by Ivan Fesenko

[Fukugen, in Inference: International Review of Science 2 no. 3 \(2016\), by Ivan Fesenko](#)

[Introduction to inter-universal Teichmüller theory \(in Japanese\), by Yuichiro Hoshi](#)

[Introduction to inter-universal Teichmüller theory, continued \(in Japanese\), by Yuichiro Hoshi](#)

[Introduction to mono-anabelian geometry, by Yuichiro Hoshi](#)

[A proof of abc conjecture, after Mochizuki, by Go Yamashita](#)

Workshops and seminars on IUT

[December 2015 Oxford workshop on IUT, org. I. Fesenko, M. Kim, K. Kremnitzer](#)

[Beijing workshop on IUT, July 2015, org. Ch. P. Mok and F. Tan](#)

[Semester on anabelian geometry and inter-universal Teichmüller theory, 2016, Shanghai Jiao Tong Univ., org. F. Tan](#)

[July 2016 Kyoto workshop on IUT, org. I. Fesenko, Sh. Mochizuki, Yu. Taguchi](#)

[Promenade in Inter-Universal Teichmüller Theory 2020-2021, org. B. Collas, P. Dèbes, B. Fresse](#)

[Invitation to inter-universal Teichmüller theory, August 31 - September 3 2021, org. B. Collas, I. Fesenko, Y. Hoshi, S. Mochizuki, Y. Taguchi](#)

[Inter-universal Teichmüller theory \(IUT\) summit, September 7 - September 10 2021, org. B. Collas, I. Fesenko, Y. Hoshi, S. Mochizuki, Y. Taguchi](#)

[Tokyo IUT conference, April 2-5 2024, org. Y. Hoshi, F. Kato, S. Mochizuki](#)

[IUT Summit workshop, RIMS, March 17-20 2025, org. B. Collas, Y. Hoshi, E. Lepage, S. Mochizuki](#)

AMS Math Review (mathscinet) of the IUT papers

[link to the review](#)

Videos

[Videos of workshops on anabelian geometry and IUT](#)

[Videos of the 2021 anabelian geometry and IUT RIMS workshops, available on request](#)

[Videos of the 2024 Tokyo IUT workshop, available on request](#)

[Animations of IUT](#)

General talks, books and videos about IUT

Fumiharu Kato's talk at Simons Centre

Fumiharu Kato's public lecture on the abc conjecture and the inter-universal Teichmüller theory of Shinichi Mochizuki, with English subtitles

"Mathematics that bridges universes. The shock of IUT theory", 300pp. book by Fumiharu Kato, Kadokawa, April 2019, ISBN 978-4044004170

The effective abc inequality and how it was applied to a new proof of FLT, by Ivan Fesenko, October 2023

IUT and modern number theory, talk at RIMS workshop on IUT Summit, September 2021, slides, by Ivan Fesenko

Video of a colloquium talk about IUT in Kyiv's Institute of Mathematics, by Ivan Fesenko

A colloquium talk about IUT for mathematicians, by Ivan Fesenko, slides

Anabelian arithmetic geometry - a new geometry of forms and numbers: Inter-universal Teichmüller theory or "beyond Grothendieck's vision", by Benjamin Collas

More links are available from this page of Shinichi Mochizuki