Dear Colleagues,

I am writing on behalf of the Organizing Committee of the two workshops

- "Invitation to Inter-universal Teichmüller Theory" (Notes)
- "Inter-universal Teichmüller Theory Summit 2021" (Notes)

held online at RIMS, Kyoto University, in September 2021. These two workshops are part of a yearlong RIMS Project

"Expanding Horizons of Inter-universal Teichmüller Theory"

on topics related to Inter-universal Teichmüller Theory (IUT). Earlier this year, two other closely related anabelian workshops

- "Foundations and Perspectives of Anabelian Geometry" (Notes)
- "Combinatorial Anabelian Geometry and Related Topics" (Notes)

were also held online at RIMS.

I am writing, on behalf of the Organizing Committee of the two IUT workshops, to invite you to register to view the **Zoom videos** from the **two IUT workshops**. Mathematicians who attended the online Berkeley Colloquium talk "Classical Roots of Inter-universal Teichmüller Theory" in November 2020 may think of these two IUT workshops as a sort of vastly expanded version of this Berkeley Colloquium talk. Alternatively, mathematicians who attended the online seminar

- "Promenade in Inter-universal Teichmüller Theory"

held at RIMS, Kyoto University, and Lille University (France) during the period September 2020 - April 2021 may think of these two IUT workshops as a sort of in-depth, concentrated version of the RIMS-Lille seminar. Access to the Zoom videos from the two anabelian geometry workshops mentioned above is also available for those who are interested.

Access to the videos will be provided to professional mathematicians (and graduate students in mathematics) who register by sending an e-mail to any of the members of the Organizing Committee stating the

- **name**,
- **affiliation**, and
- **Gmail address**

of the person to be registered. Access will, at least initially, be provided until March 31, 2022 (the end of the Japanese school year), but may be extended further if there is sufficient interest.

The videos may be shown to a few colleagues, but are **not** to be made public. Moreover, the videos are to be used **only for scholarly, mathematical purposes**. In particular, the videos are **not** to be used for non-mathematical purposes.

Many developments have come to pass in the nine years since the preprints on IUT were first made public in August 2012. The four original papers on IUT were published in the international mathematical journal PRIMS in March 2021. A subsequent paper by five authors on explicit estimates in IUT, which gives a new proof of Fermat's Last Theorem, was recently accepted for publication in the Kodai Math. J. Moreover, three mathematicians have begun writing a new series of papers on a **generalized version of IUT** with various **new applications**. In particular, IUT continues to be a field of **active research** and **exciting new developments**.

Unfortunately, it has come to my attention that certain misunderstandings concerning IUT continue to persist in certain parts of the world. Perhaps the most famous misunderstanding concerns an asserted identification of "redundant copies". This misunderstanding involves well-known, essentially elementary mathematics at the beginning graduate level concerning the general nonsense surrounding "gluings". For instance, if one "applies" this misunderstanding to the well-known gluing construction of the projective line, then one concludes that the two copies of the affine line that appear in this gluing are **"redundant"**, hence may be **identified**. This identification leads immediately to a **contradiction**, i.e., to a "proof" that the **projective line cannot exist**! More details may be found in the Introduction to [EssLgc] and the references given there.

 As discussed in [EssLgc], §1, such misunderstandings give rise to **entirely unnecessary confusion** and can, at times, lead to **deeply detrimental disruptions** of the **operational normalcy** of the field of mathematics (cf. [EssLgc], §1.10).

On the other hand, as discussed in [EssLgc], §1, the potent tools of

(1) producing detailed, explicit, accessible, and mathematically substantive **written records** of the mathematical reasoning underlying various assertions concerning IUT (cf., e.g., article (6.) of the subsection entitled "Responsibilities of authors" of the EMSCOP (!); [EssLgc], §1.5) and

(2) enhancing the mathematical and person-to-person interconnectivity (cf. [EssLgc], §1.11) of the worldwide mathematical community by fostering **constructive mathematical dialogue** (e.g., via e-mail and video meetings) among mathematicians worldwide concerning issues of mutual interest

can play an important role in overcoming unnecessary and unconstructive misunderstandings.

It is the sincere hope of the Organizing Committee that the workshop videos discussed above can serve as a **dynamic stimulus** in promoting activities around the world of the sort described above in (1) and (2) concerning IUT.

Sincerely,

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