

Kind of proposal: Talk

Adapting Lean tutorials to the Brazilian case

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Lean4 ([1]) is a proof assistant that is also a general-purpose language, and that has “metaprogramming facilities” ([2]) that let people extend its syntax in many ways. It is becoming very popular, and the page [3] has links to more than 40 courses on Lean, or using Lean.

I don’t think that these courses are adequate for Brazilians. They all start from some point like “everybody knows VSCode” and they move to non-trivial ideas very quickly. But “everybody knows the programs such and such” is not true in Brazil at all; half of the Brazilian logicians that I know only use computers in a very basic way, and here “knowledge about programs does not propagate” (see [4]).

In this presentation I will show how I adapted the approach in [4] – that I use to teach Maxima to undergraduate students with very little experience with computers – to create a short workshop on Lean ([5]) that teaches people how to install Lean4, how navigate its manuals, how to understand its interface, and how to run and modify simplified versions of some examples from the main books on Lean.

References

- [1] *Lean Documentation Overview.*
Available at <https://lean-lang.org/lean4/doc/>.
- [2] *Metaprogramming in Lean4.*
Available at <https://leanprover-community.github.io/lean4-metaprogramming-book/>.
- [3] *Courses using Lean.*
Available at <https://leanprover-community.github.io/teaching/courses.html>.
- [4] *Emacs, eev, and Maxima – Now!*
Available at <http://anggtwu.net/emacsconf2024.html>.
- [5] *Oficina de Lean4 – versão 0.*
Available at <http://anggtwu.net/2024-lean4-oficina-0.html>.

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