You know **FINESSE**!
Frequency domain INterferometer Simulation
SoftwarE

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We’re happy you were able to participate in this - short - Finesse workshop. If you have any ideas or suggestion on how to better structure our course, please tell us!

Visit Gw Optics for more information and news about FINESSE. We have prepared an installation guide to help speed up your involvement in the Finesse community. If you want to keep exploring different and more advanced examples of Finesse, head over to the Learn Laser Interferometry course. Once you’re comfortable, try modeling your own experiment and send us (if you want to) your examples.

While working on Finesse notebooks, you might want to visit the FINESSE syntax reference page and the Finesse cheat sheet. A (far) more detailed reference is the FINESSE manual.

For those just getting started on laser interferometry, there is a review article (Interferometer techniques for gravitational-wave detection; C. Bond, D. Brown, A. Freise, and K. Strain, Living Reviews in Relativity 2016) – An extensive review (essentially a textbook) of laser interferometry techniques in the frequency domain used for detecting gravitational waves. It’s written by developers and users of Finesse, so naturally covers the kinds of physics Finesse is able to model. It was updated in 2016 to include several new chapters, and is now available as a handy searchable html website (and you can copy-paste the latex equations).

LVK members (you need an Albert.Einstein login) can join the forum/chat to ask more detailed questions about FINESSE and Pykat. LVK members also have access to git.ligo.org, where you can find more FINESSE examples (organized in no specific order, and very LIGO-specific) and Pykat examples.