

How to use the IMRPhenomPv2_NRTidal waveform with Python

2.7

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1 Ask for access to the LIGO cluster

2 Connect to the cluster

— Type `gsissh -l yourLIGUsername ldas-pcdev2.ligo.caltech.edu` or `gsissh -l yourLIGUsername ldas-pcdev6.ligo.caltech.edu` in your command line.

— If the error message `-bash: gsissh: command not found` appears, type the command `source .bash_login` then try again.

— If it asks for your password then doesn't accept it, type the command `ligo-proxy-init yourLIGUsername`, give your LIGO account password when asked, then try again.

3 Use IMRPhenomPv2_NRTidal

— This waveform is at the moment only available in LALInferenceO2, which means it's not in the regular LALSuite package. To use it, connect to the cluster and type `source ~cbc/pe/lalinference_o2.sh` in the command line.

— in the script: `approx=lalsim.IMRPhenomPv2_NRTidal`

— order for the arguments to call the function:

`hpf1, hcf1 = lalsim.SimInspiralChooseFDWaveform(phiRef,deltaF,m1_SI,m2_SI,s1x,s1y,s1z, s2x,s2y,s2z,fmin, fmax,fref,distance,inclination,lambda1,lambda2,None,None,0,0,approx)`

source code: https://git.ligo.org/lscsoft/lalsuite/blob/lalinference_o2/lalsimulation/src/LALSimInspiral.c#L891