

torch.Size([1, 1]) torch.Size([1, 1])

loss1 0.6230933290973759 loss2= 0.14227432012557983 overall loss= 0.7653676492229557

loss1 0.40932159426032033 loss2= 0.14669696986675262 overall loss= 0.556018564127073

loss1 0.24485072432094057 loss2= 0.22740685939788818 overall loss= 0.47225758371882876

loss1 0.2179535812478015 loss2= 0.22542478144168854 overall loss= 0.44337836268949005

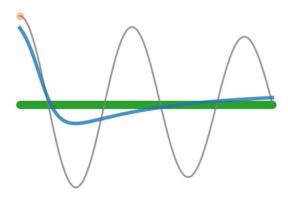
loss1 0.18825570888171583 loss2= 0.21770399808883667 overall loss= 0.4059597069705525

loss1 0.1458155254574791 loss2= 0.19672366976737976 overall loss= 0.3425391952248589

loss1 0.08244705876224145 loss2= 0.175363227725029 overall loss= 0.25781028648727045

loss1 0.04835785029086992 loss2= 0.17571569979190826 overall loss= 0.22407355008277818

loss1 0.03158622406576583 loss2= 0.1444292664527893 overall loss= 0.17601549051855514



Exact solution
Neural network prediction
Training data

Physics loss training locations

loss1 0.018037096635922012 loss2= 0.11423070728778839 overall loss= 0.1322678039237104

loss1 0.016644677636179495 loss2= 0.10764147341251373 overall loss= 0.12428615104869323

loss1 0.015402651809385048 loss2= 0.10151175409555435 overall loss= 0.1169144059049394

loss1 0.013693529514146263 loss2= 0.09464554488658905 overall loss= 0.10833907440073531

loss1 0.01127415702343626 loss2= 0.08759262412786484 overall loss= 0.0988667811513011

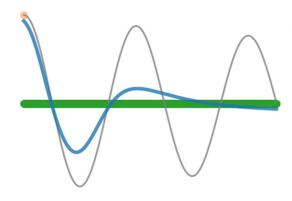
loss1 0.00914501520698252 loss2= 0.08230645954608917 overall loss= 0.0914514747530717

loss1 0.0077956987682092915 loss2= 0.07729975134134293 overall loss= 0.08509545010955222

loss1 0.006719311555173135 loss2= 0.07269812375307083 overall loss= 0.07941743530824397

loss1 0.005880764662435922 loss2= 0.06853727251291275 overall loss= 0.07441803717534867

loss1 0.005179678879358107 loss2= 0.06414317339658737 overall loss= 0.06932285227594548



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 0.004540322931351426 loss2= 0.059410735964775085 overall loss= 0.06395105889612651

loss1 0.003984120299719507 loss2= 0.05496148020029068 overall loss= 0.05894560050001019

loss1 0.003544902007490691 loss2= 0.051480796188116074 overall loss= 0.055025698195606765

loss1 0.003163577038790777 loss2= 0.04834109917283058 overall loss= 0.05150467621162136

loss1 0.0027503211467774236 loss2= 0.04449200630187988 overall loss= 0.047242327448657306

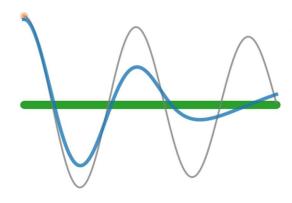
loss1 0.0022645487899950467 loss2= 0.040533456951379776 overall loss= 0.04279800574137482

loss1 0.0018649592935879866 loss2= 0.03829963505268097 overall loss= 0.040164594346268956

loss1 0.0017683131191006396 loss2= 0.03729010745882988 overall loss= 0.03905842057793052

loss1 0.0015661319235391602 loss2= 0.03686779364943504 overall loss= 0.038433925572974204

loss1 0.0014604121489334432 loss2= 0.03643859922885895 overall loss= 0.03789901137779239



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 0.0014692040276855778 loss2= 0.03595178946852684 overall loss= 0.03742099349621242

loss1 0.0011393922746414376 loss2= 0.03585554286837578 overall loss= 0.036994935143017216

loss1 0.0013918229345932787 loss2= 0.03515268862247467 overall loss= 0.03654451155706795

loss1 0.0014237401945962347 loss2= 0.03472225368022919 overall loss= 0.03614599387482542

loss1 0.0013228491071117787 loss2= 0.03446034714579582 overall loss= 0.0357831962529076

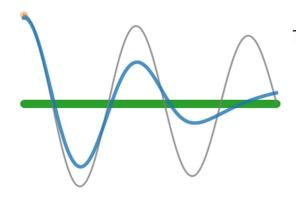
loss1 0.0012966662347402291 loss2= 0.034130677580833435 overall loss= 0.035427343815573664

loss1 0.001254196452581624 loss2= 0.03384217619895935 overall loss= 0.035096372651540975

loss1 0.0012389812409310252 loss2= 0.0335339792072773 overall loss= 0.03477296044820832

loss1 0.00121535362394809 loss2= 0.03324810415506363 overall loss= 0.03446345777901172

loss1 0.0011903447918690802 loss2= 0.032969485968351364 overall loss= 0.034159830760220444



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 0.0011791594698742358 loss2= 0.03268464282155037 overall loss= 0.033863802291424605

loss1 0.0011469778301353983 loss2= 0.03241780772805214 overall loss= 0.03356478555818754

loss1 0.0011139638962873732 loss2= 0.03213975951075554 overall loss= 0.03325372340704291

loss1 0.0011053150515749621 loss2= 0.03181213140487671 overall loss= 0.03291744645645167

loss1 0.001069761870894581 loss2= 0.03146954998373985 overall loss= 0.032539311854634434

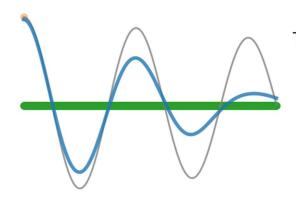
loss1 0.0010594350590089618 loss2= 0.03102436475455761 overall loss= 0.03208379981356657

loss1 0.0010907704734250956 loss2= 0.030411040410399437 overall loss= 0.03150181088382453

loss1 0.0009994415792249356 loss2= 0.029702220112085342 overall loss= 0.030701661691310278

loss1 0.000905847814895111 loss2= 0.02864578738808632 overall loss= 0.02955163520298143

loss1 0.0008899023215214186 loss2= 0.02691049501299858 overall loss= 0.02780039733452



Exact solution
Neural network prediction
Training data

Physics loss training locations

loss1 0.0007851752066159179 loss2= 0.024388980120420456 overall loss= 0.025174155327036374

loss1 0.0006385601023453091 loss2= 0.020647918805480003 overall loss= 0.021286478907825312

loss1 0.0004829050217871611 loss2= 0.016220038756728172 overall loss= 0.016702943778515333

loss1 0.0003353678101944979 loss2= 0.011925322003662586 overall loss= 0.012260689813857084

loss1 0.0002061363022818341 loss2= 0.008584671653807163 overall loss= 0.008790807956088997

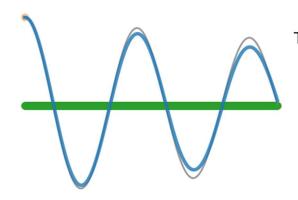
loss1 5.4438138604950836e-05 loss2= 0.006403231527656317 overall loss= 0.006457669666261268

loss1 5.2266632849296e-05 loss2= 0.004978950601071119 overall loss= 0.005031217233920415

loss1 6.055925041437149e-05 loss2= 0.004054534714668989 overall loss= 0.004115093965083361

loss1 5.245727112779264e-05 loss2= 0.0034403579775243998 overall loss= 0.0034928152486521924

loss1 8.055970488385356e-05 loss2= 0.002964595565572381 overall loss= 0.0030451552704562346



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 2.7701372587785045e-05 loss2= 0.002614583820104599 overall loss= 0.002642285192692384

loss1 2.5561566477705355e-05 loss2= 0.002300278516486287 overall loss= 0.0023258400829639925

loss1 1.1702076335495804e-05 loss2= 0.0020476209465414286 overall loss= 0.0020593230228769244

loss1 7.589292611243081e-06 loss2= 0.001814574934542179 overall loss= 0.0018221642271534222

loss1 8.828927636983508e-06 loss2= 0.0016280444106087089 overall loss= 0.0016368733382456924

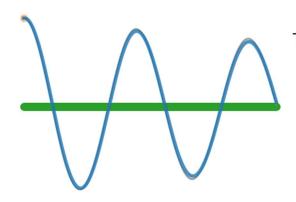
loss1 9.523952030576766e-06 loss2= 0.0014207686763256788 overall loss= 0.0014302926283562556

loss1 7.620194143242998e-06 loss2= 0.001261060475371778 overall loss= 0.001268680669515021

loss1 6.680960584759532e-06 loss2= 0.0011192775564268231 overall loss= 0.0011259585170115827

loss1 5.2695667172031335e-06 loss2= 0.0009922542376443744 overall loss= 0.0009975238043615775

loss1 4.064528184244409e-06 loss2= 0.0008801231160759926 overall loss= 0.000884187644260237



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 3.0273187725526896e-06 loss2= 0.0007812847616150975 overall loss= 0.0007843120803876502

loss1 7.887379638304992e-09 loss2= 0.0007583440165035427 overall loss= 0.000758351903883181

loss1 6.080068857272636e-07 loss2= 0.0006280950037762523 overall loss= 0.0006287030106619795

loss1 1.5524549326073611e-06 loss2= 0.0005420740926638246 overall loss= 0.0005436265475964319

loss1 7.583054184578941e-08 loss2= 0.0004965374246239662 overall loss= 0.000496613255165812

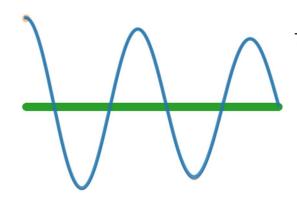
loss1 1.5806543594010236e-06 loss2= 0.0004299307765904814 overall loss= 0.0004315114309498824

loss1 6.360224347190524e-07 loss2= 0.0003883626777678728 overall loss= 0.00038899870020259186

loss1 1.0415237881034045e-06 loss2= 0.0003370927879586816 overall loss= 0.000338134311746785

loss1 5.971799943438327e-07 loss2= 0.00030154138221405447 overall loss= 0.0003021385622083983

loss1 6.013326725451407e-07 loss2= 0.00027016818057745695 overall loss= 0.0002707695132500021



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 1.3827651091702364e-05 loss2= 0.0005757895996794105 overall loss= 0.0005896172507711128

loss1 3.5123281705295994e-07 loss2= 0.00022070285922382027 overall loss= 0.00022105409204087323

loss1 1.3092094608424532e-05 loss2= 0.0002143021993106231 overall loss= 0.00022739429391904764

loss1 1.2073869903872492e-06 loss2= 0.00018817096133716404 overall loss= 0.0001893783483275513

loss1 2.2414514333490843e-07 loss2= 0.00016810761007945985 overall loss= 0.00016833175522279475

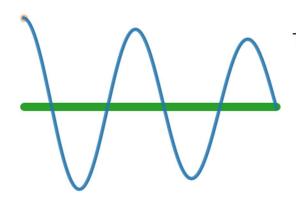
loss1 1.5112910922709943e-06 loss2= 0.00015670702850911766 overall loss= 0.00015821831960138866

loss1 7.901468279669643e-08 loss2= 0.00014539482071995735 overall loss= 0.00014547383540275405

loss1 9.31286195182679e-06 loss2= 0.00014445262786466628 overall loss= 0.00015376548981649307

loss1 9.316864080233245e-08 loss2= 0.00017064146231859922 overall loss= 0.00017073463095940156

loss1 6.199723671329593e-06 loss2= 0.0001248800108442083 overall loss= 0.0001310797345155379



Exact solution
Neural network prediction
Training data
Physics loss training locations

loss1 1.5905314754149913e-07 loss2= 0.00011150862701470032 overall loss= 0.00011166768016224182

loss1 2.908416774971556e-06 loss2= 0.00010809269588207826 overall loss= 0.00011100111265704982

loss1 7.085942854700988e-08 loss2= 0.0001007343889796175 overall loss= 0.00010080524840816452

loss1 2.726267211983213e-09 loss2= 9.652290464146063e-05 overall loss= 9.652563090867261e-05

loss1 2.5918470925034853e-08 loss2= 0.00010145342093892395 overall loss= 0.00010147933940984899

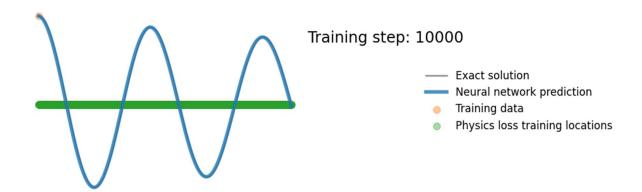
loss1 1.6461587293292723e-07 loss2= 8.906213770387694e-05 overall loss= 8.922675357680987e-05

loss1 6.162972354673002e-08 loss2= 8.48094787215814e-05 overall loss= 8.487110844512813e-05

loss1 1.1245005282489728e-07 loss2= 8.166055340552703e-05 overall loss= 8.177300345835192e-05

loss1 2.700435075553287e-08 loss2= 7.891380664659664e-05 overall loss= 7.894081099735217e-05

loss1 5.3953673528894797e-08 loss2= 7.610570173710585e-05 overall loss= 7.615965541063474e-05



loss1 2.58801780006479e-07 loss2= 7.366946374531835e-05 overall loss= 7.392826552532483e-05