

$$g_{1\lambda}[m] := \frac{1}{1 + (m/\lambda)^2};$$

Max Scharr magnitude response

$$\sqrt{16^2 + 16^2} // N$$

22.6274

(\* Show Number.Convert to string w/no trailing dot.Round to the nearest r. (<http://stackoverflow.com/questions/1545986/suppressing-a-trailing-in-numerical-output-from-mathematica>) \*)

Unprotect[Round]; Round[x\_, 0] := x; Protect[Round];

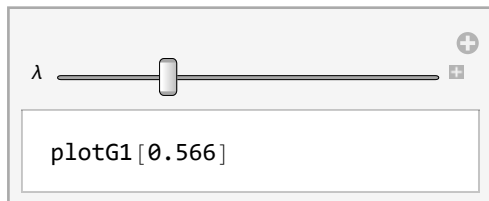
re = RegularExpression;

shn[x\_, r\_ : 0] :=

StringReplace[ToString@NumberForm[Round[N@x, r], ExponentFunction -> (Null &)], re@"\\.\$" -> ""]

```
plotG1[λ_] := Plot[g1λ[m], {m, 0, 20},
  PlotRange -> {0, 1},
  AxesLabel -> {"magnitude", "conductivity"},
  PlotLabel -> "λ = " <> ToString[shn[λ]],
  ImageSize -> 500,
  BaseStyle -> {FontSize -> 14}
];
```

```
Manipulate[
  plotG1[λ]
, {λ, 0.05, 2}]
```



```
(*Export[FileNameJoin[{NotebookDirectory[], "frames/lambda=00.png"}],
  Table[plotG1[λ], {λ, 0.05, 2, 0.05}], "VideoFrames", Antialiasing -> True];*)
```

(\* KAZE g3 \*)

```
Manipulate[
  Plot[
    {
      1, L ≤ 0.001
    }, {L, 0, 5}, PlotRange -> All]
, {k, 1, 2}]
```

