Ingenieurbüro Baumann --- www.leobaumann.de --- Markt 6, 46282 Dorsten
Impedanz eines Dipols nach MEINKE über der Länge bis zu Lambda/2

- `reset():digits:=16:d:=1/1000:lambda:=1:`

Mindestverhältnis h/Lambda für d, lmin=25*d

- `kmin:=float(25*d/lambda);`

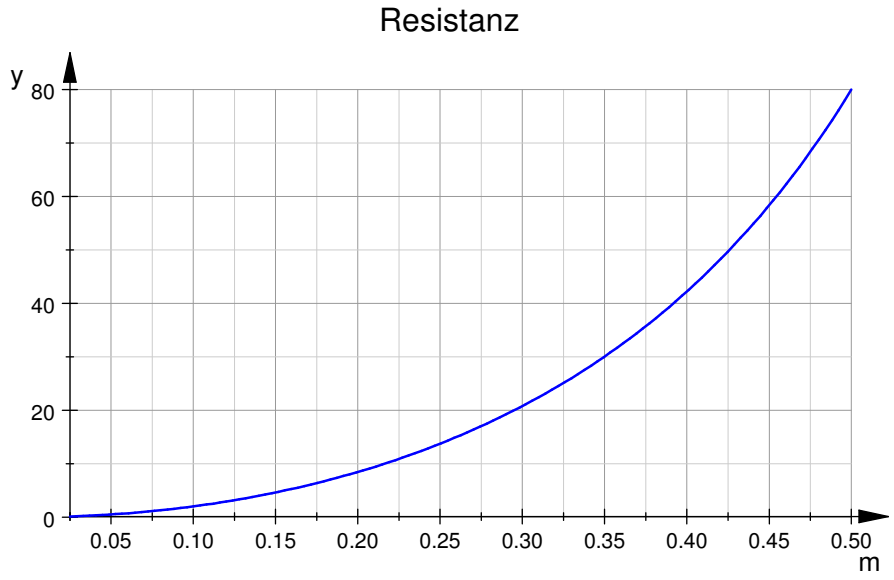
  0.025

MEINKE-Funktionen

- `heff:=(k)->lambda/PI*tan(PI/2*k):`
- `Zm:=(k)->120*ln(2*k*lambda/d-1):`
- `Z_Re:=(k)->80*PI^2*(heff(k)/lambda)^2:`
- `Z_Im:=(k)->-Zm(k)*cot(PI*k):`

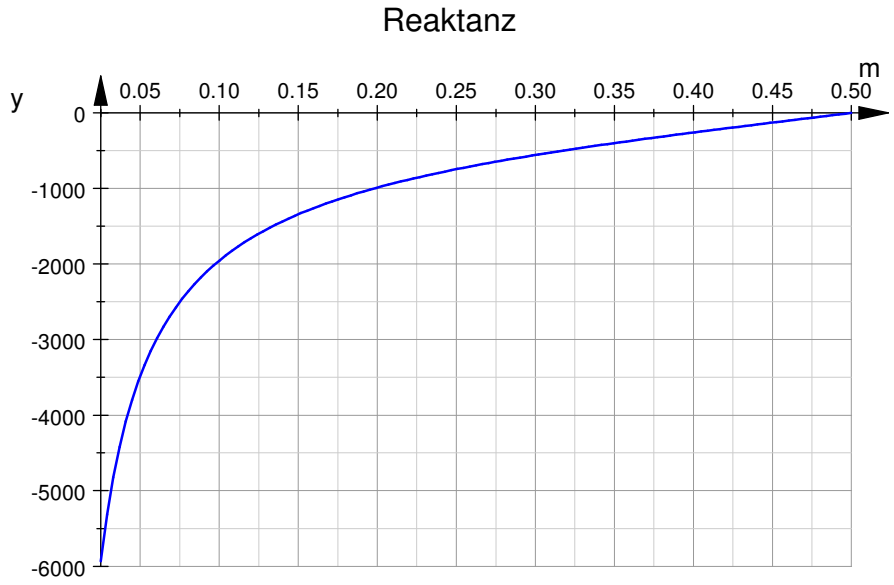
Resistanz über l/Lambda

- `plotfunc2d(Z_Re(m), m=kmin..1/2, GridVisible=TRUE, SubgridVisible=TRUE, AdaptiveMesh=4, Height=80*unit::mm, Width=120*unit::mm, Header="Resistanz"):`



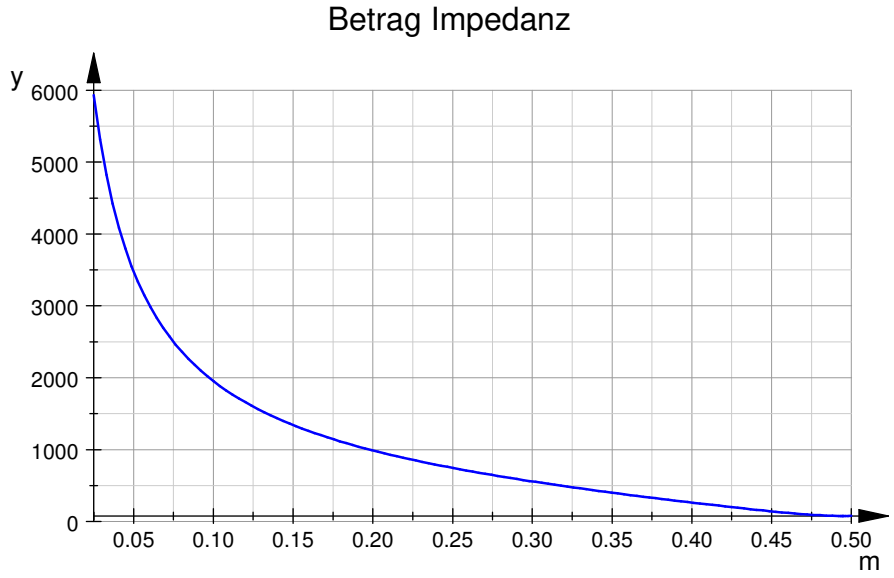
Reaktanz Antennenimpedanz über l/Lambda

- `plotfunc2d(Z_Im(m), m=kmin..1/2, GridVisible=TRUE, SubgridVisible=TRUE, AdaptiveMesh=4, Height=80*unit::mm, Width=120*unit::mm, Header="Reaktanz"):`



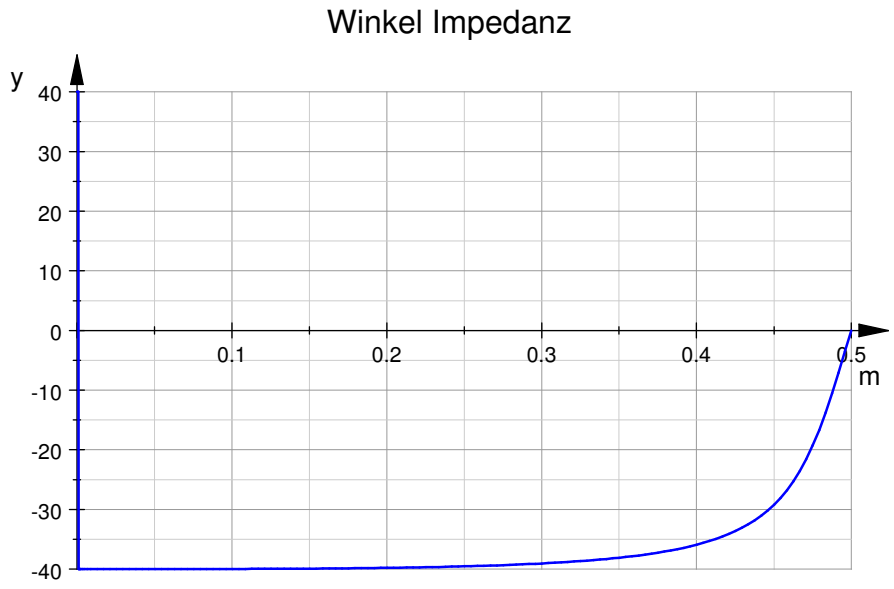
Betrag der Antennenimpedanz über l/Lambda

- `plotfunc2d(sqrt(Z_Re(m)^2+Z_Im(m)^2), m=kmin..1/2, GridVisible=TRUE, SubgridVisible=TRUE, AdaptiveMesh=4, Height=80*unit::mm, Width=120*unit::mm, Header="Betrag Impedanz"):`



Winkel der Antennenimpedanz über l/Lambda

- `plotfunc2d(80/PI*arctan(Z_Im(m)/Z_Re(m)), m=0..1/2, GridVisible=TRUE, SubgridVisible=TRUE, AdaptiveMesh=4, Height=80*unit::mm, Width=120*unit::mm, Header="Winkel Impedanz"):`


Winkel Impedanz
y
40
30
20
10
0
-10
-20
-30
-40
0.1
0.2
0.3
0.4
0.5
m