```
> restart;


> j:=0;
  W:=Array(1e2..1e4);
  E:=Array(1e2..1e4);
  for w from 1e2 to 1e4 do
  j:=j+1;
  W(j):=w;
  wl:=0.08;
  alpha:=.5;
  gamma0:=8.82*1e10;
  mu0:=4*Pi*1e-7;
  gammA:=gamma0/(1+alpha^2);
  alphaPrime:=mu0*gammA*alpha;
  gamma1:=mu0*gammA;
  m0:=mu0*1e5;
> dsys:={diff(x(t), t) =alphaPrime*(z(t)^2*wl*cos(w*t)/gamma1+y(t)
  ^2*wl*cos(w*t)/gamma1),diff(y(t),t)=-z(t)*wl*cos(w*t)-alphaPrime*
  y(t)*wl*cos(w*t)*x(t)/gamma1,diff(z(t),t)=y(t)*wl*cos(w*t)-
  alphaPrime*z(t)*wl*cos(w*t)*x(t)/gamma1,x(0)=.01,y(0)=1,z(0)=0.1}
  ;
> dsn1 := dsolve(dsys, numeric);
> dsn1(1);
> B:=Array(1..10);
  i:=0:
  for t1 from 0 to 1 by 0.1 do
  i:=i+1:
  B(i):=(t1)
  end do:
  ArrayNumElems(B);
  dsol:= dsolve(dsys, numeric, output =(B));ArrayNumElems(B);
  M:=dsol(2,1);
  T:=M(1..10,1);
  x1:=M(1..10,2);
  y1:=M(1..10,3);
  z1:=M(1..10,4);
  with(CurveFitting):
  mx:=t->PolynomialInterpolation(T, x1, t);
  my:=t->PolynomialInterpolation(T, y1, t);
  mz:=t->PolynomialInterpolation(T, z1, t);
  m1:=t->D[1](mx)(t);evalf(m1(1));
  m2:=t->D[1](my)(t);
  m3:=t->D[1](mz)(t);
  Hx:=(t)->(wl/gamma1)*cos(w*t);
  Hy:=(t)->0;
  Hz:=(t)->0;
  H:=(t)->Hx(t)*m1(t)+Hy(t)*m2(t)+Hz(t)*m3(t);
  e:=evalf(int(m0*H(t),t=0..((2*Pi)/w)));

  E(j):=e;E(j);
  end do;
> WW:=Vector(W);EE:=Vector(E);
  plot(WW,EE);
```

Error, (in convert/diff/genglobal/get_tn) too many levels of recursion