Complex vector and polarization   Ari Sihvola

In[45]:= `Clear["`*"]`

In[46]:=
```
x = Graphics[Arrow[{{0, 0}, {1.2, 0}}]];
y = Graphics[Arrow[{{0, 0}, {0, 1.2}}]];
c = Graphics[{Dashed, Circle[]}];
er[erx_, ery_] =
  Graphics[{Arrowheads → Large, Blue, Thickness[.01], Arrow[{{0, 0}, {erx, ery}}]}];
ei[eix_, eiy_] = Graphics[
    {Arrowheads → Large, Red, Thickness[.01], Arrow[{{0, 0}, {eix, eiy}}]}];
```

In[48]:=
```
e[t_, erx_, ery_, eix_, eiy_] := Graphics[{Arrowheads → Large, Black, Thickness[.01],
     Arrow[{{0, 0}, {erx Cos[t] - eix Sin[t], ery Cos[t] - eiy Sin[t]}}]}];
```

In[49]:= `Manipulate[Show[{c, x, y, er[erx, ery], ei[eix, eiy], e[t, erx, ery, eix, eiy]},`
`    PlotRange → {{-2, 2}, {-2, 2}}], {t, 0, 2 π},`
`  {erx, 1, 0}, {ery, 0, 1}, {eix, 0, 1}, {eiy, 1, -1}]`

Out[49]=