

```

> restart;
> with(PDEtools):with(linalg):with(LinearAlgebra):with(plots):alias
(w=w(z),phi=phi(t),psi=psi(t)):
> alpha:=-5;phi:=simplify(KummerU(alpha,beta,z)):phi:=simplify
(LaguerreL(-alpha,beta-1,z)):
<math display="block">\alpha := -5 \tag{1}>
> n:=3;
<math display="block">n := 3 \tag{2}>
> phi:=for K from 1 to n do;l[K]:=diff(%,z)*z;od:wronskian([phi,seq
(l[k],k=1..n-1)],z):for K from 1 to n do;h[K]:=Row(%,1);row(%,2)
;wronskian(%*z,z):od:simplify(<seq(simplify(h[k]),k=1..n)>):tau:=
det(%) :op(1,sort(tau,z,descending)):coeffs(%) :tau[n]:=factor(sort
(expand(tau/(%))))*(z^(n/2*(1-n))):
> RootOf(tau[n],z):A:=evalf(allvalues(%)):
> animate( complexplot, [[A],thickness=4,color=blue,symbolsize=25],
beta=-10..10,style=point,symbol=solidcircle,frames=200);

```

$\beta = -10.$

