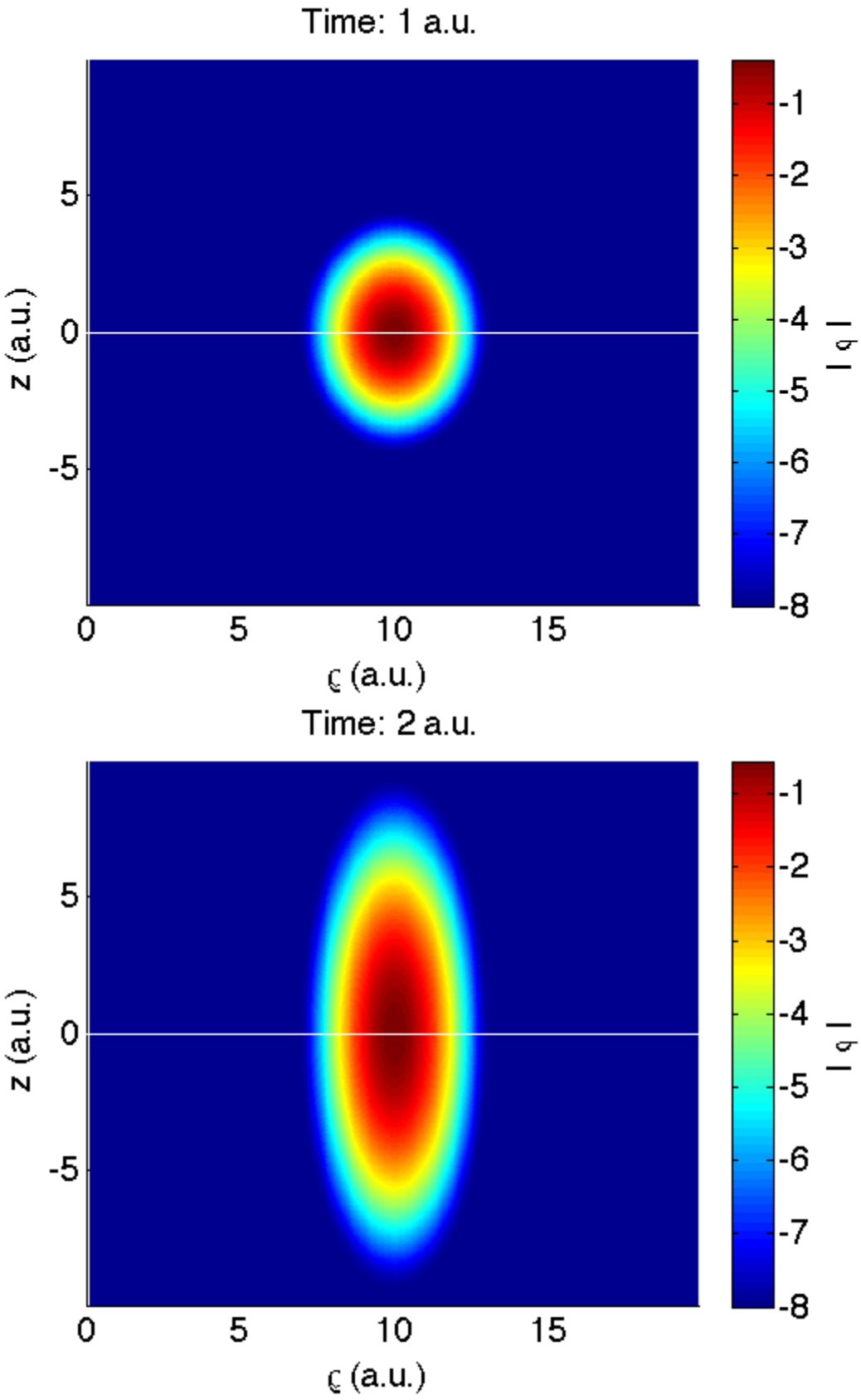
Reader cylindrical coordinate 2D

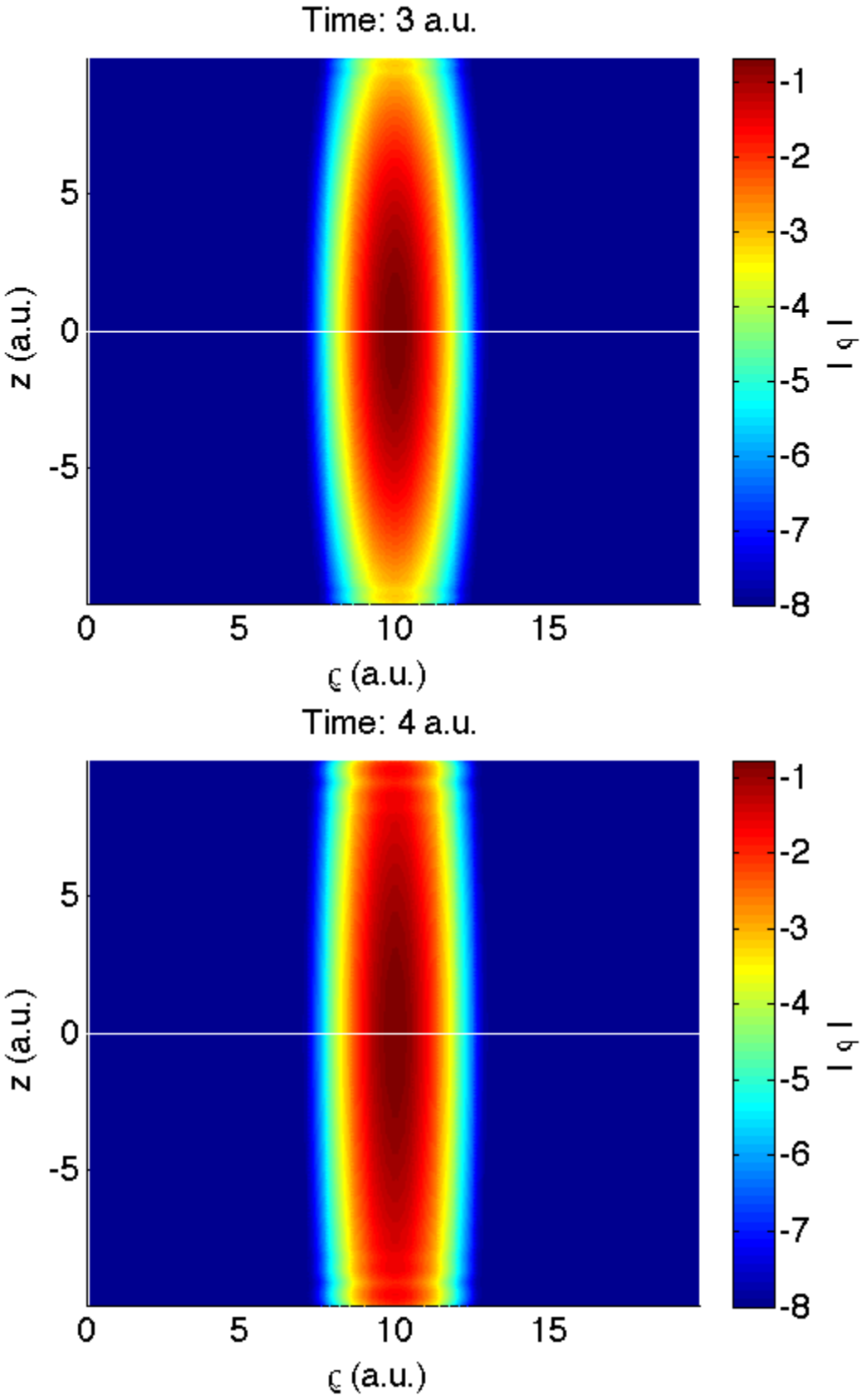
```
clear all
A0 = importdata('out0.txt');
A1 = importdata('out2.txt');
%A2 = importdata('out2.txt');
%A3 = importdata('out3.txt');


nr = 100%A3(1);
nz = 200%A3(2);

Ntime = 1%A3(3);
snap  = 12%A3(4);%1;%

Nsnap = snap;%floor(Ntime/snap);

r = A0(1:nr);
z = A0(nr+1:nz+nr);

[R Z] = meshgrid(r,z);

r0=0;
```

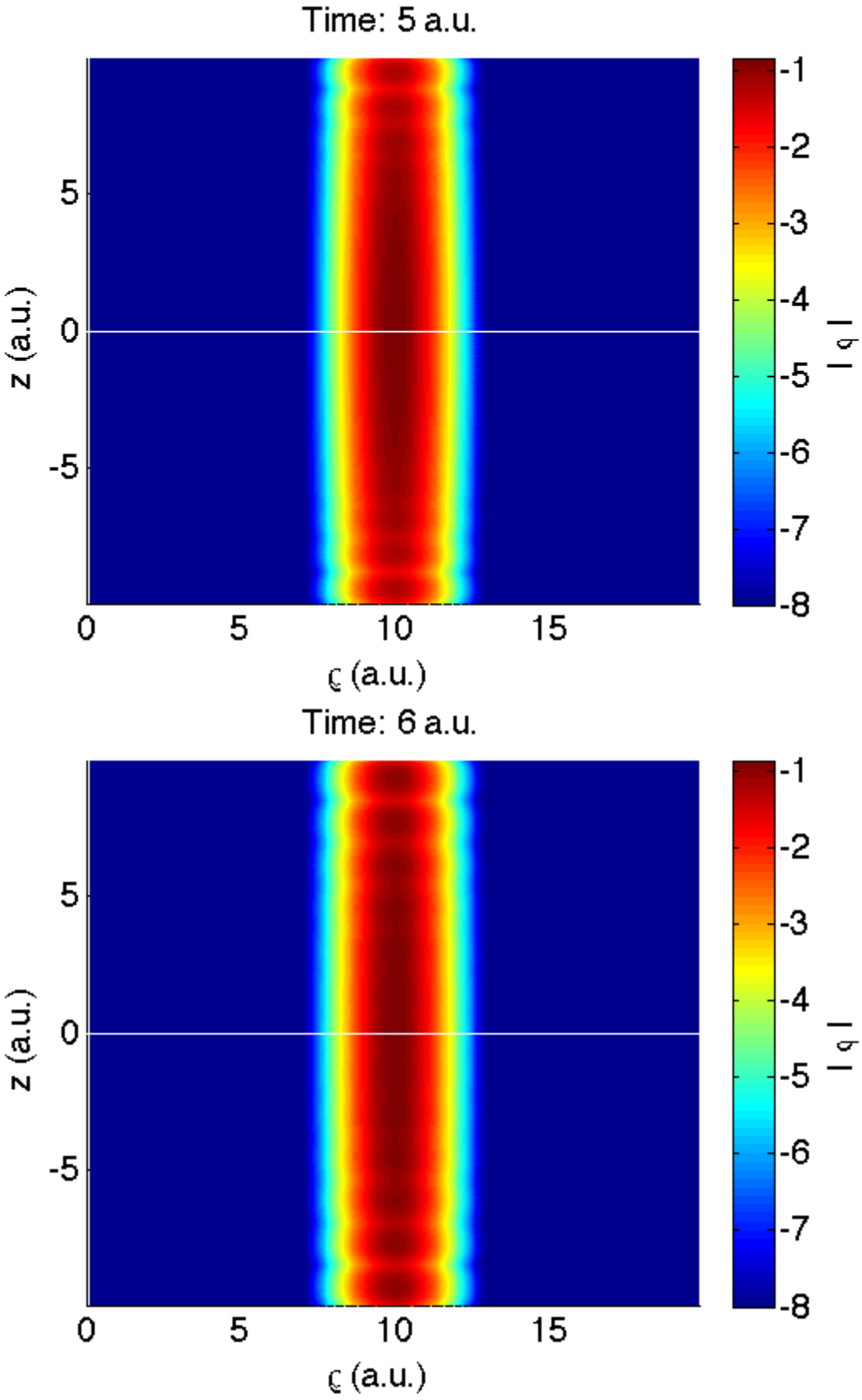
```
nr =

   100


nz =

   200


Ntime =

     1


snap =

    12
```

```
%aviobj = avifile('GEWP_C2D.avi');
scrsz = get(0,'ScreenSize');
fig=figure('Position',[1 scrsz(4) scrsz(3)*0.5 scrsz(4)*0.5],...
    'Color','w');
xmin = 0;
xmax = 24;
ymin =-15;
ymax = 15;
for j=1:Nsnap
   % clf
    figure
    PHI=reshape(A1(1+nr*nz*(j-1):nr*nz*j),nz,nr);

%for jmovie=1:3
   % subplot(5,3,j)
    surfc(R,Z,log10(PHI+1e-8),...
```

```
        'FaceColor','interp',...
        'EdgeColor','none')

    view(2)
    axis tight

    h=gca;
    set(h,'fontsize',16)

    ylabel('z (a.u.) ','fontsize',16)%,'fontweight','b')
    xlabel('\rho (a.u.) ','fontsize',16)%,'fontweight','b')
    hold on
    plot3([0 max(r)],[0 0],[1 1]*(1),'Color','w')
    plot3([r0 r0],[min(z) max(z)],[1 1]*(1),'Color','w')

    h = colorbar('location','EastOutside');
    set(get(h,'YLabel'),'String','| \phi |  ',...
     'fontsize',16)%,'fontweight','b');
    %caxis([-12 0])
    title(['Time: ',num2str(1.*j),' a.u.'],'fontsize',16)
   % title(['Time: ',num2str(A2(j)),' a.u.'],'fontsize',16)
   axis tight
   % xlim([xmin xmax])
   % ylim([ymin ymax])

    h=gca;
    set(h,'fontsize',16)

    %caxis([-6 -1])
  %  F = getframe(fig);
  %  aviobj = addframe(aviobj,F);
%end
    pause(0.2)
 %   display(j);
end

%aviobj = close(aviobj);
```


Time: 1 a.u.
z (a.u.)
ϱ (a.u.)
0
5
10
15
-5
0
5
-1
-2
-3
-4
-5
-6
-7
-8
| ρ |
Time: 2 a.u.
z (a.u.)
ϱ (a.u.)
0
5
10
15
-5
0
5
-1
-2
-3
-4
-5
-6
-7
-8
| ρ |


Time: 3 a.u.
z (a.u.)
5
0
-5
0
5
10
15
ϱ (a.u.)
-1
-2
-3
-4
-5
-6
-7
-8
| ρ |
Time: 4 a.u.
z (a.u.)
5
0
-5
0
5
10
15
ϱ (a.u.)
-1
-2
-3
-4
-5
-6
-7
-8
| ρ |


Time: 5 a.u.
z (a.u.)
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ϱ (a.u.)
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Time: 6 a.u.
z (a.u.)
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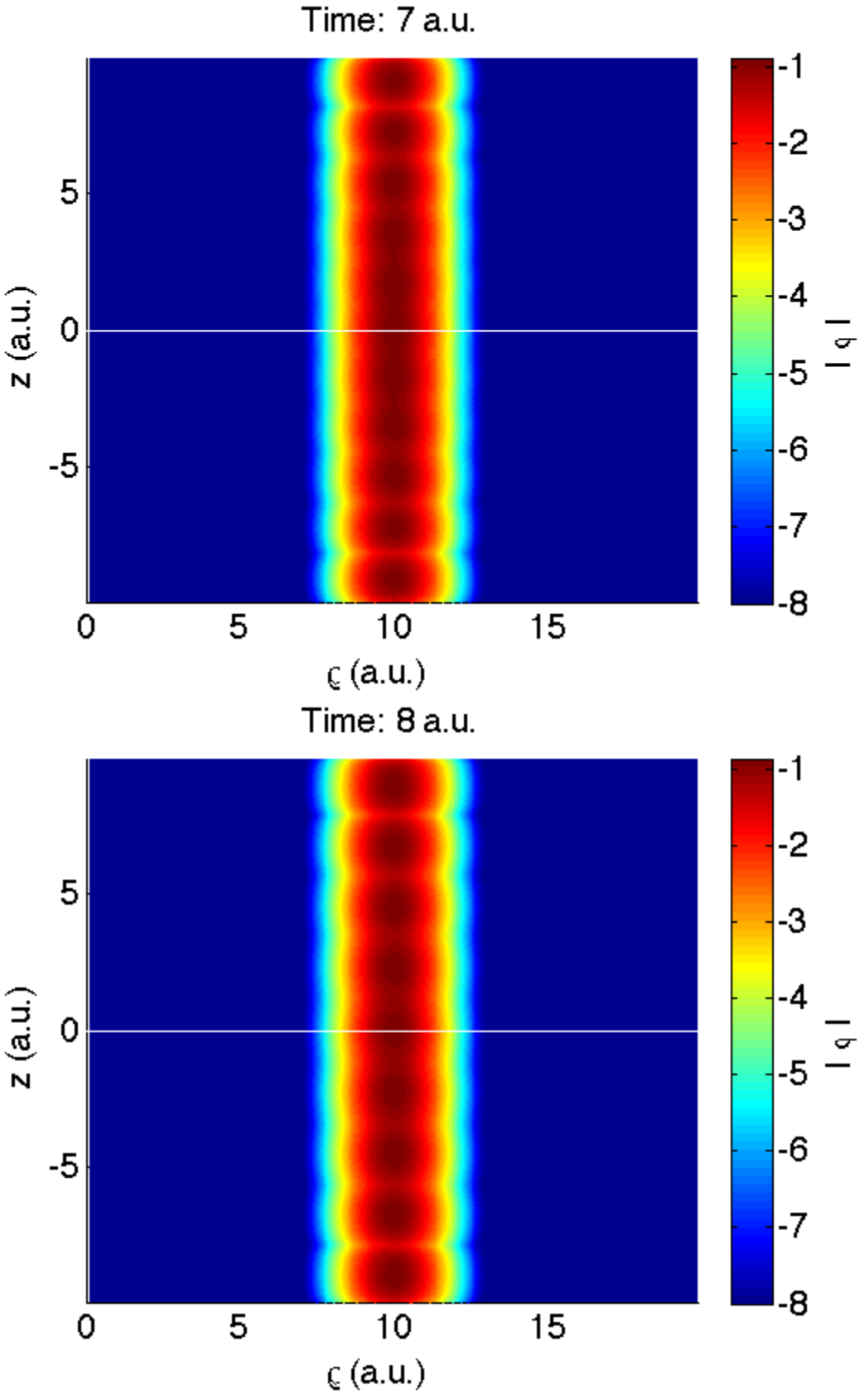
Time: 7 a.u.
z (a.u.)
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ϱ (a.u.)
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| ϱ |
Time: 8 a.u.
z (a.u.)
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ϱ (a.u.)
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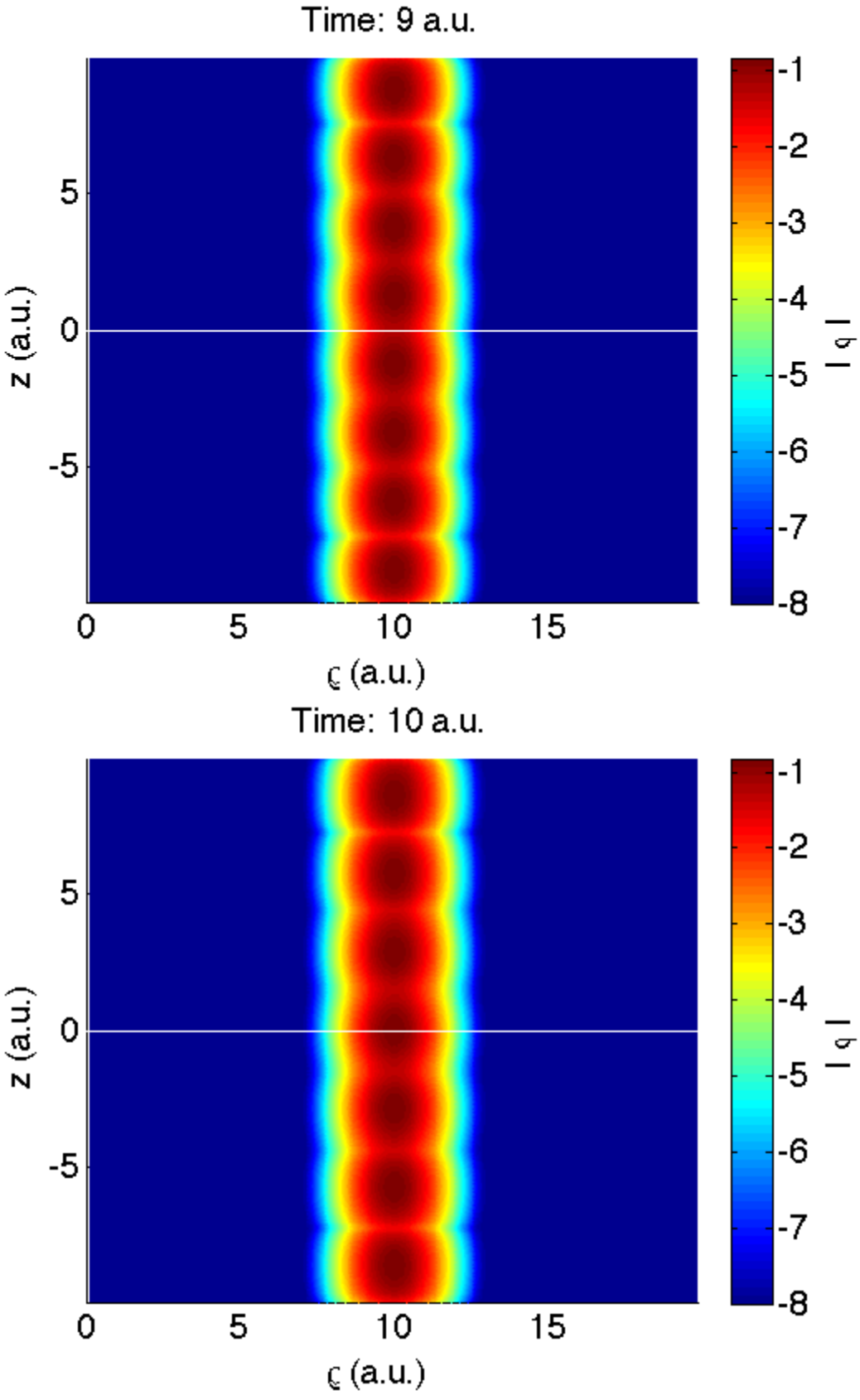
Time: 9 a.u.
z (a.u.)
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ϱ (a.u.)
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Time: 10 a.u.
z (a.u.)
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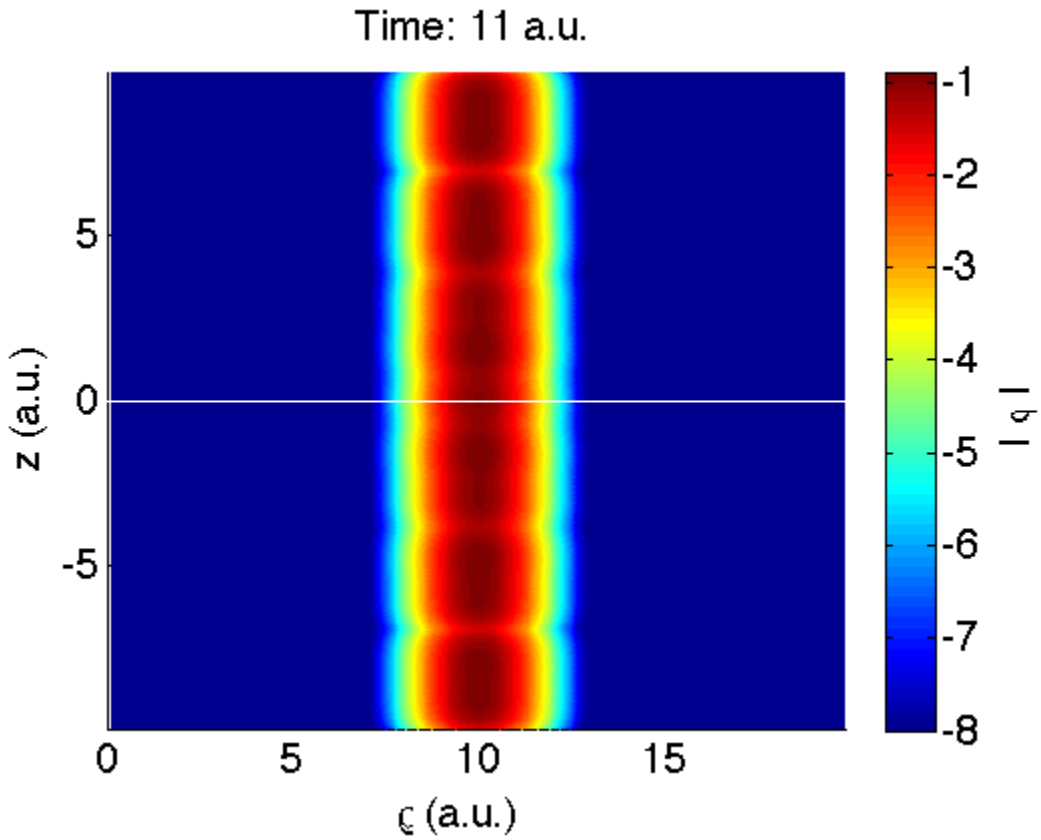
Time: 11 a.u.
z (a.u.)
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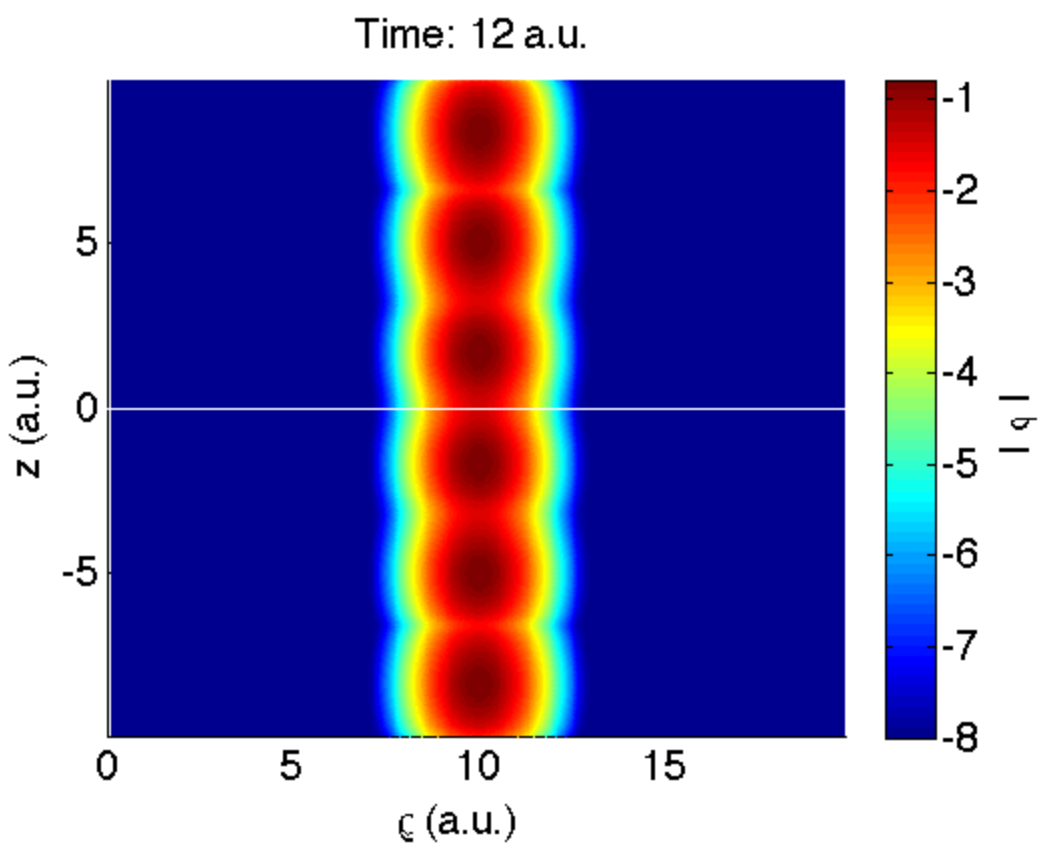
Time: 12 a.u.
z (a.u.)
ς (a.u.)
| ϕ |
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