Wormsely.m

```matlab
function Vel=Wormsely(time)
%come ingresso un vettore time eg W=Wormsely([0:0.5:pi/2]);
A=1;omega=1;rho=1; R=1;
r=-1:0.1:1;
%impostare alpha, 4 valori per 4 grafici
alpha=[0.1 1 5 10];
for a1=1:length(alpha)
insidedenom=1i^1.5*alpha(a1);
inside1=1i^1.5*alpha(a1)*r./R;
for t=1:length(time)
Vr=A*exp(1i*omega*time(t))./(1i*omega*rho);
Vel(:,t)=real(Vr*(1-besselj(0,inside1)./besselj(0,insidedenom)));
subplot(2,2,a1), plot(r,Vel), title(['alpha=', num2str(alpha(a1)) ])
end
end


end
```