## 实验一 去掉血管及组织中的血管分量 得到图像-目的是验证图像出现空白是不是缺少点缘故

% Make the scatteres for a simulation and store

% it in a file for later simulation use

% Joergen Arendt Jensen, Feb. 26, 1997

load pht\_data\_zuzhi/pht\_data\_zuzhi.mat

load pht\_data\_zuzhi/pht\_data\_xueliu.mat

phantom\_positions=phantom\_positions\_zuzhi;

phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

%%%%%%%%

eval(['save pht\_data/pht\_data' num2str(1) ' phantom\_positions phantom\_amplitudes'])

%首先找出血流中血流分量

liu\_1=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000) & phantom\_positions\_xueliu(:,3)<=(64.5/1000));

phantom\_positions\_xueliu=phantom\_positions\_xueliu([liu\_1],:);

phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([liu\_1],:);

phantom\_positions\_xueliu\_copy=phantom\_positions\_xueliu;

phantom\_amplitudes\_xueliu\_copy=phantom\_amplitudes\_xueliu

%首先找出组织中组织分量 本次使用找出血流并删除的方法

zuzhi\_1=find(phantom\_positions\_zuzhi(:,3)>=(55.5/1000) & phantom\_positions\_zuzhi(:,3)<=(64.5/1000));

phantom\_positions\_zuzhi([zuzhi\_1],:)=[];

phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=[];

phantom\_positions\_zuzhi\_copy=phantom\_positions\_zuzhi;

phantom\_amplitudes\_zuzhi\_copy=phantom\_amplitudes\_zuzhi;

% [phantom\_positions, phantom\_amplitudes] = cyst\_pht(100000);

%定义血流位移量

vp=50/1000;

R=4.5/1000;%cyst\_pht.m--r1=9/2/1000;

dz=R/25

for i=1:25

vr(i)=vp\*(1-((dz\*i)/R)^2);%定义的血流速度 抛物线函数

end

vr2=fliplr(vr);%翻转函数 翻转就是[1 2 3]翻转之后就是[3 2 1]

vr1=[vr2,vr];%将两个抛物线拼起来

s=[];

for i=1:50

t=1/20;%制作20张图 所以时间是1/20

s(i)=vr1(i)\*t;%算出血流的位移量

end

% for j=1:20

phantom\_positions\_zuzhi=phantom\_positions\_zuzhi\_copy;

phantom\_amplitudes\_zuzhi=phantom\_amplitudes\_zuzhi\_copy;

phantom\_positions\_xueliu=phantom\_positions\_xueliu\_copy;

phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu\_copy;

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & phantom\_positions\_xueliu(:,3)<=(55.5/1000+dz\*i));

% phantom\_positions\_xueliu(h,1)=phantom\_positions\_xueliu(h,1)+j\*s(i);

% %此处找出h中 也就是血管内的变量中流出血管的值

% % %find(phantom\_positions(h,1)>20/1000 )这句已经把其重新排序了

% % h1=find(phantom\_positions(h,1)>20/1000 );

% % h3=h(h1);

% % %此处相当于就找出来原来在那里的值所对应的序号

% % phantom\_positions(h3,1)=-20/1000;

% end

% %找出那些是属于在选定范围内的

% h1=find(phantom\_positions\_xueliu(:,1)>=(25/1000) & phantom\_positions\_xueliu(:,1)<=(75/1000));

%

% choose\_phantom\_positions\_xueliu=phantom\_positions\_xueliu([h1],:);

% phantom\_positions=[phantom\_positions\_zuzhi;choose\_phantom\_positions\_xueliu];

%

% choose\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([h1],:);

% phantom\_amplitudes=[phantom\_amplitudes\_zuzhi;choose\_phantom\_amplitudes\_xueliu]

%%这么些有问题 因为相当于直接将全部都重新开始了 所以要先把血管内的跳出来

%%%%%测试如果没有血流的样子

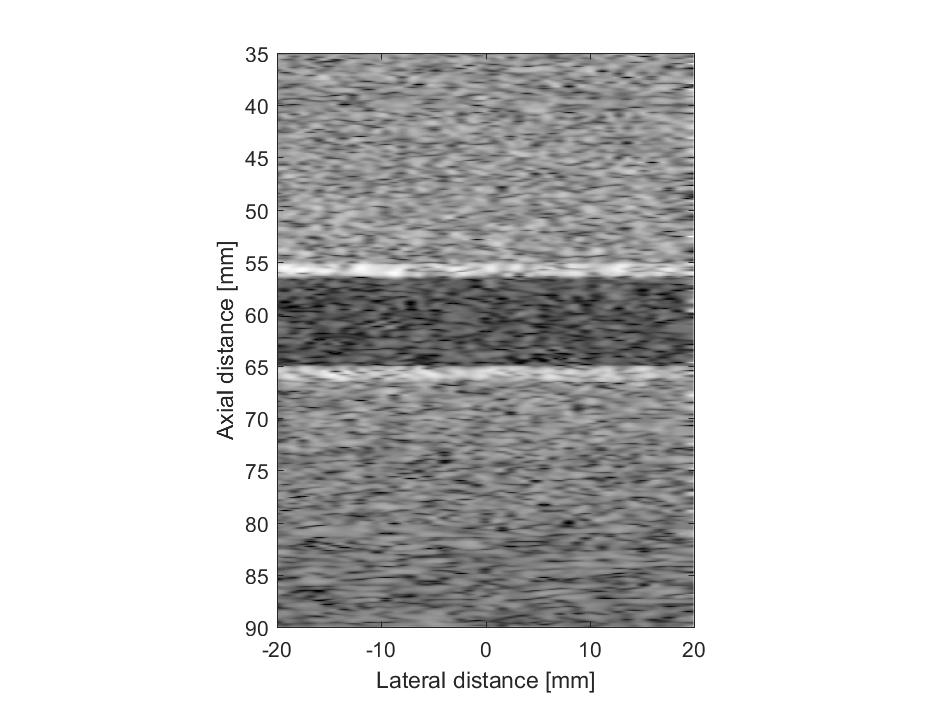
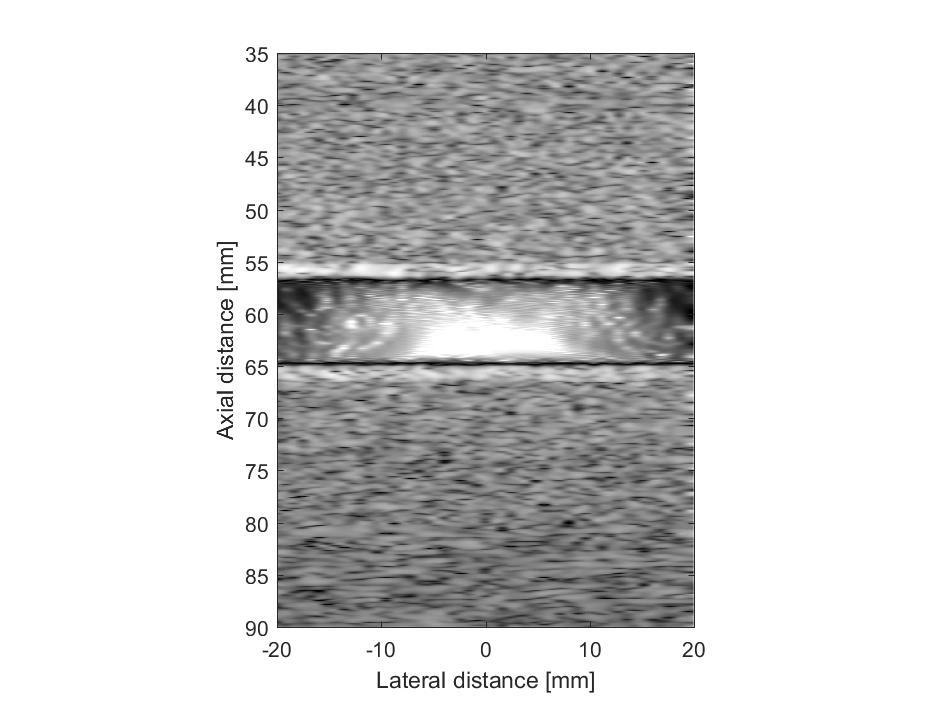
phantom\_positions=phantom\_positions\_zuzhi;

phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

%%%%%%%%

eval(['save pht\_data/pht\_data' num2str(2) ' phantom\_positions phantom\_amplitudes'])

% end



## 实验二：验证延长伸展替换的可行性

% Make the scatteres for a simulation and store

% it in a file for later simulation use

% Joergen Arendt Jensen, Feb. 26, 1997

load pht\_data\_zuzhi/pht\_data\_zuzhi.mat

% load pht\_data\_zuzhi/pht\_data\_xueliu.mat

% phantom\_positions=phantom\_positions\_zuzhi;

% phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

%%%%%%%%

% eval(['save pht\_data/pht\_data' num2str(1) ' phantom\_positions phantom\_amplitudes'])

%首先找出血流中血流分量

% liu\_1=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000) & phantom\_positions\_xueliu(:,3)<=(64.5/1000));

% phantom\_positions\_xueliu=phantom\_positions\_xueliu([liu\_1],:);

% phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([liu\_1],:);

% phantom\_positions\_xueliu\_copy=phantom\_positions\_xueliu;

% phantom\_amplitudes\_xueliu\_copy=phantom\_amplitudes\_xueliu;

%首先找出组织中组织分量 本次使用找出血流并删除的方法

zuzhi\_1=find(phantom\_positions\_zuzhi(:,3)>=(55.5/1000) & phantom\_positions\_zuzhi(:,3)<=(64.5/1000));

tiaochu\_phantom\_positions\_xueliu=phantom\_positions\_zuzhi([zuzhi\_1],:);

tiaochu\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_zuzhi([zuzhi\_1]);

tiaochu\_copy\_phantom\_positions\_xueliu=tiaochu\_phantom\_positions\_xueliu;

tiaochu\_copy\_phantom\_positions\_xueliu(:,1)=tiaochu\_copy\_phantom\_positions\_xueliu(:,1)-50/1000;

% temp1\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_zuzhi([zuzhi\_1],:);

result\_phantom\_positions\_xueliu=[tiaochu\_phantom\_positions\_xueliu;tiaochu\_copy\_phantom\_positions\_xueliu];

result\_phantom\_amplitudes\_xueliu=[tiaochu\_phantom\_amplitudes\_xueliu;tiaochu\_phantom\_amplitudes\_xueliu];

% phantom\_positions\_zuzhi([zuzhi\_1],:)=[];

% phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=[];

% phantom\_positions\_zuzhi\_copy=phantom\_positions\_zuzhi;

% phantom\_amplitudes\_zuzhi\_copy=phantom\_amplitudes\_zuzhi;

% [phantom\_positions, phantom\_amplitudes] = cyst\_pht(100000);

%定义血流位移量

vp=50/1000;

R=4.5/1000;%cyst\_pht.m--r1=9/2/1000;

dz=R/25

for i=1:25

vr(i)=vp\*(1-((dz\*i)/R)^2);%定义的血流速度 抛物线函数

end

vr2=fliplr(vr);%翻转函数 翻转就是[1 2 3]翻转之后就是[3 2 1]

vr1=[vr2,vr];%将两个抛物线拼起来

s=[];

for i=1:50

t=1/20;%制作20张图 所以时间是1/20

s(i)=vr1(i)\*t;%算出血流的位移量

end

for j=1:20

% phantom\_positions\_zuzhi=phantom\_positions\_zuzhi\_copy;

% phantom\_amplitudes\_zuzhi=phantom\_amplitudes\_zuzhi\_copy;

% phantom\_positions\_xueliu=phantom\_positions\_xueliu\_copy;

% phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu\_copy;

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & phantom\_positions\_xueliu(:,3)<=(55.5/1000+dz\*i));

% phantom\_positions\_xueliu(h,1)=phantom\_positions\_xueliu(h,1)+j\*s(i);

% %此处找出h中 也就是血管内的变量中流出血管的值

% % %find(phantom\_positions(h,1)>20/1000 )这句已经把其重新排序了

% % h1=find(phantom\_positions(h,1)>20/1000 );

% % h3=h(h1);

% % %此处相当于就找出来原来在那里的值所对应的序号

% % phantom\_positions(h3,1)=-20/1000;

% end

% %找出那些是属于在选定范围内的

h1=find(result\_phantom\_positions\_xueliu(:,1)>=(-30/1000) & result\_phantom\_positions\_xueliu(:,1)<=(20/1000));

%

choose\_phantom\_positions\_xueliu=result\_phantom\_positions\_xueliu([h1],:);

choose\_phantom\_amplitudes\_xueliu=result\_phantom\_amplitudes\_xueliu([h1],:);

phantom\_positions\_zuzhi([zuzhi\_1],:)=choose\_phantom\_positions\_xueliu;

phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=choose\_phantom\_amplitudes\_xueliu;

phantom\_positions=phantom\_positions\_zuzhi;

phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

% choose\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([h1],:);

% phantom\_amplitudes=[phantom\_amplitudes\_zuzhi;choose\_phantom\_amplitudes\_xueliu]

%%这么些有问题 因为相当于直接将全部都重新开始了 所以要先把血管内的跳出来

% %%%%%测试如果没有血流的样子

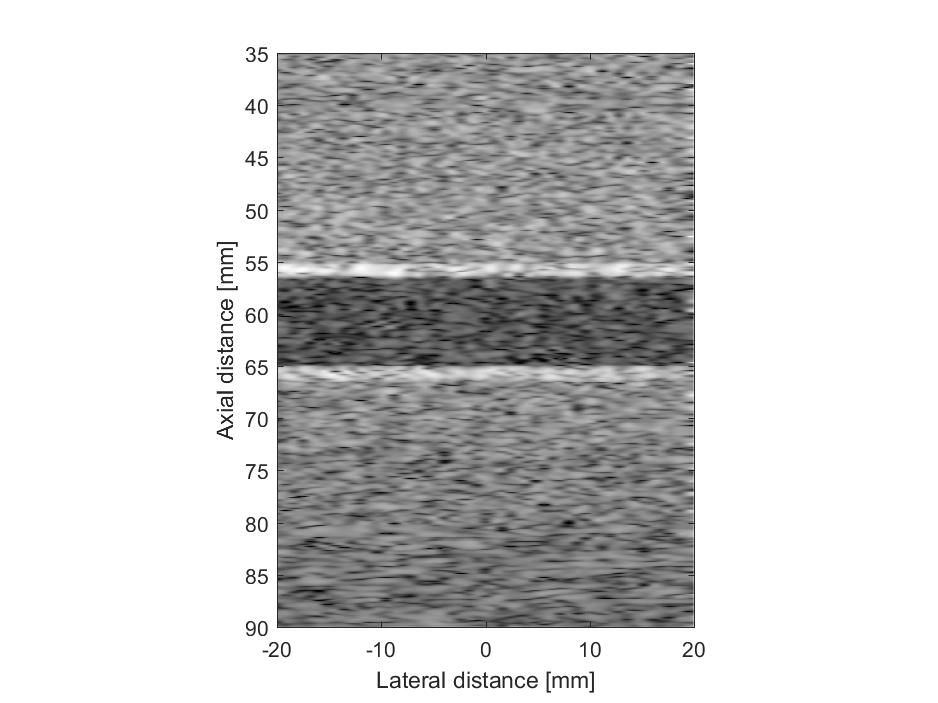
% phantom\_positions=phantom\_positions\_zuzhi;

% phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

% %%%%%%%%

eval(['save pht\_data/pht\_data' num2str(j) ' phantom\_positions phantom\_amplitudes'])

end



## 实验三 x如果移动必定报错 带有下标的赋值维度不匹配 即h1=9029 不等于9999 疑问

% Make the scatteres for a simulation and store

% it in a file for later simulation use

clear;clc;

% Joergen Arendt Jensen, Feb. 26, 1997

load pht\_data\_zuzhi/pht\_data\_zuzhi.mat

% load pht\_data\_zuzhi/pht\_data\_xueliu.mat

% phantom\_positions=phantom\_positions\_zuzhi;

% phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

%%%%%%%%

% eval(['save pht\_data/pht\_data' num2str(1) ' phantom\_positions phantom\_amplitudes'])

%首先找出血流中血流分量

% liu\_1=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000) & phantom\_positions\_xueliu(:,3)<=(64.5/1000));

% phantom\_positions\_xueliu=phantom\_positions\_xueliu([liu\_1],:);

% phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([liu\_1],:);

% phantom\_positions\_xueliu\_copy=phantom\_positions\_xueliu;

% phantom\_amplitudes\_xueliu\_copy=phantom\_amplitudes\_xueliu;

%首先找出组织中组织分量 本次使用找出血流并删除的方法

zuzhi\_1=find(phantom\_positions\_zuzhi(:,3)>=(55.5/1000) & phantom\_positions\_zuzhi(:,3)<=(64.5/1000));

tiaochu\_phantom\_positions\_xueliu=phantom\_positions\_zuzhi([zuzhi\_1],:);

tiaochu\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_zuzhi([zuzhi\_1]);

tiaochu\_copy\_phantom\_positions\_xueliu=tiaochu\_phantom\_positions\_xueliu;

tiaochu\_copy\_phantom\_positions\_xueliu(:,1)=tiaochu\_copy\_phantom\_positions\_xueliu(:,1)-50/1000;

% temp1\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_zuzhi([zuzhi\_1],:);

result\_phantom\_positions\_xueliu=[tiaochu\_phantom\_positions\_xueliu;tiaochu\_copy\_phantom\_positions\_xueliu];

result\_phantom\_amplitudes\_xueliu=[tiaochu\_phantom\_amplitudes\_xueliu;tiaochu\_phantom\_amplitudes\_xueliu];

down=find(result\_phantom\_positions\_xueliu(:,1)>=(-30/1000) & result\_phantom\_positions\_xueliu(:,1)<=(20/1000));

% phantom\_positions\_zuzhi([zuzhi\_1],:)=[];

% phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=[];

% phantom\_positions\_zuzhi\_copy=phantom\_positions\_zuzhi;

% phantom\_amplitudes\_zuzhi\_copy=phantom\_amplitudes\_zuzhi;

% [phantom\_positions, phantom\_amplitudes] = cyst\_pht(100000);

result\_phantom\_positions\_xueliu\_copy=result\_phantom\_positions\_xueliu;

result\_phantom\_amplitudes\_xueliu\_copy=result\_phantom\_amplitudes\_xueliu;

vp=50/1000;%不要把血流速度弄那么大，刚好20帧，打算成像20张图

R=4.5/1000;%cyst\_pht.m--r1=9/2/1000;

dz=R/25%血管内的血流分成50份，每份的宽度

L\_X=50/1000;%血管总长

dx=L\_X/300;%长度为50的组织分成300份

vp\_1=1/1000;%组织及血管的最大位移

vr\_vessel=zeros(1000,20);%500线 20张图所以有20个状态

for i=1:20

k5=abs(i-21);

w(i)=k5;

end

%%%%%定义血管内血流的位移%%%%%%%%%%%%%%%%%%%%%%%%%

for i=1:25

vr(i)=vp\*(1-((dz\*i)/R)^2);%定义的血流速度 抛物线函数

end

vr2=fliplr(vr);%翻转函数 翻转就是[1 2 3]翻转之后就是[3 2 1]

vr1=[vr2,vr];%将两个抛物线拼起来

s=[];

for i=1:50

dt=1/20;%20张图 所以每张图1/20秒

s(i)=vr1(i)\*dt;%算出血流的位移量

end

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

for j=1:20%%为了便于观察 第一张图不变

% phantom\_positions\_zuzhi=phantom\_positions\_zuzhi\_copy;

% phantom\_amplitudes\_zuzhi=phantom\_amplitudes\_zuzhi\_copy;

% phantom\_positions\_xueliu=phantom\_positions\_xueliu\_copy;

% phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu\_copy;

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & phantom\_positions\_xueliu(:,3)<=(55.5/1000+dz\*i));

% phantom\_positions\_xueliu(h,1)=phantom\_positions\_xueliu(h,1)+j\*s(i);

% %此处找出h中 也就是血管内的变量中流出血管的值

% % %find(phantom\_positions(h,1)>20/1000 )这句已经把其重新排序了

% % h1=find(phantom\_positions(h,1)>20/1000 );

% % h3=h(h1);

% % %此处相当于就找出来原来在那里的值所对应的序号

% % phantom\_positions(h3,1)=-20/1000;

% end

% %找出那些是属于在选定范围内的

%%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*模块一：血流位移\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(result\_phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & result\_phantom\_positions\_xueliu(:,3)<(55.5/1000+dz\*i));

% result\_phantom\_positions\_xueliu(h,1)=result\_phantom\_positions\_xueliu(h,1)+(j-1)\*5\*s(i);

% end

%%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*end\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(result\_phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & result\_phantom\_positions\_xueliu(:,3)<(55.5/1000+dz\*i));

result\_phantom\_positions\_xueliu(:,1)=result\_phantom\_positions\_xueliu(:,1)+5/1000;

% end

%找到属于-25/1000到25/1000之间的点

h1=find(result\_phantom\_positions\_xueliu(:,1)>=(-25/1000) & result\_phantom\_positions\_xueliu(:,1)<=(25/1000));

%

choose\_phantom\_positions\_xueliu=result\_phantom\_positions\_xueliu([h1],:);

choose\_phantom\_amplitudes\_xueliu=result\_phantom\_amplitudes\_xueliu([h1],:);

phantom\_positions\_zuzhi([zuzhi\_1],:)=choose\_phantom\_positions\_xueliu;

phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=choose\_phantom\_amplitudes\_xueliu;

phantom\_positions=phantom\_positions\_zuzhi;

phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

% choose\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([h1],:);

% phantom\_amplitudes=[phantom\_amplitudes\_zuzhi;choose\_phantom\_amplitudes\_xueliu]

%%这么些有问题 因为相当于直接将全部都重新开始了 所以要先把血管内的跳出来

% %%%%%测试如果没有血流的样子

% phantom\_positions=phantom\_positions\_zuzhi;

% phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

% %%%%%%%%

eval(['save pht\_data/pht\_data' num2str(j) ' phantom\_positions phantom\_amplitudes'])

end

## 实验四 等差移动选取方法可行 sum=9999

% Make the scatteres for a simulation and store

% it in a file for later simulation use

clear;clc;

% Joergen Arendt Jensen, Feb. 26, 1997

load pht\_data\_zuzhi/pht\_data\_zuzhi.mat

% load pht\_data\_zuzhi/pht\_data\_xueliu.mat

% phantom\_positions=phantom\_positions\_zuzhi;

% phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

%%%%%%%%

% eval(['save pht\_data/pht\_data' num2str(1) ' phantom\_positions phantom\_amplitudes'])

%首先找出血流中血流分量

% liu\_1=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000) & phantom\_positions\_xueliu(:,3)<=(64.5/1000));

% phantom\_positions\_xueliu=phantom\_positions\_xueliu([liu\_1],:);

% phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([liu\_1],:);

% phantom\_positions\_xueliu\_copy=phantom\_positions\_xueliu;

% phantom\_amplitudes\_xueliu\_copy=phantom\_amplitudes\_xueliu;

%首先找出组织中组织分量 本次使用找出血流并删除的方法

zuzhi\_1=find(phantom\_positions\_zuzhi(:,3)>=(55.5/1000) & phantom\_positions\_zuzhi(:,3)<=(64.5/1000));

tiaochu\_phantom\_positions\_xueliu=phantom\_positions\_zuzhi([zuzhi\_1],:);

tiaochu\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_zuzhi([zuzhi\_1]);

tiaochu\_copy\_phantom\_positions\_xueliu=tiaochu\_phantom\_positions\_xueliu;

tiaochu\_copy\_phantom\_positions\_xueliu(:,1)=tiaochu\_copy\_phantom\_positions\_xueliu(:,1)-50/1000;

% temp1\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_zuzhi([zuzhi\_1],:);

result\_phantom\_positions\_xueliu=[tiaochu\_phantom\_positions\_xueliu;tiaochu\_copy\_phantom\_positions\_xueliu];

result\_phantom\_amplitudes\_xueliu=[tiaochu\_phantom\_amplitudes\_xueliu;tiaochu\_phantom\_amplitudes\_xueliu];

down=find(result\_phantom\_positions\_xueliu(:,1)>=(-30/1000) & result\_phantom\_positions\_xueliu(:,1)<=(20/1000));

% phantom\_positions\_zuzhi([zuzhi\_1],:)=[];

% phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=[];

% phantom\_positions\_zuzhi\_copy=phantom\_positions\_zuzhi;

% phantom\_amplitudes\_zuzhi\_copy=phantom\_amplitudes\_zuzhi;

% [phantom\_positions, phantom\_amplitudes] = cyst\_pht(100000);

result\_phantom\_positions\_xueliu\_copy=result\_phantom\_positions\_xueliu;

result\_phantom\_amplitudes\_xueliu\_copy=result\_phantom\_amplitudes\_xueliu;

vp=50/1000;%不要把血流速度弄那么大，刚好20帧，打算成像20张图

R=4.5/1000;%cyst\_pht.m--r1=9/2/1000;

dz=R/25%血管内的血流分成50份，每份的宽度

L\_X=50/1000;%血管总长

dx=L\_X/300;%长度为50的组织分成300份

vp\_1=1/1000;%组织及血管的最大位移

vr\_vessel=zeros(1000,20);%500线 20张图所以有20个状态

for i=1:20

k5=abs(i-21);

w(i)=k5;

end

%%%%%定义血管内血流的位移%%%%%%%%%%%%%%%%%%%%%%%%%

for i=1:25

vr(i)=vp\*(1-((dz\*i)/R)^2);%定义的血流速度 抛物线函数

end

vr2=fliplr(vr);%翻转函数 翻转就是[1 2 3]翻转之后就是[3 2 1]

vr1=[vr2,vr];%将两个抛物线拼起来

s=[];

for i=1:50

dt=1/20;%20张图 所以每张图1/20秒

s(i)=vr1(i)\*dt;%算出血流的位移量

end

%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%%

for j=4:4%%为了便于观察 第一张图不变

% phantom\_positions\_zuzhi=phantom\_positions\_zuzhi\_copy;

% phantom\_amplitudes\_zuzhi=phantom\_amplitudes\_zuzhi\_copy;

% phantom\_positions\_xueliu=phantom\_positions\_xueliu\_copy;

% phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu\_copy;

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & phantom\_positions\_xueliu(:,3)<=(55.5/1000+dz\*i));

% phantom\_positions\_xueliu(h,1)=phantom\_positions\_xueliu(h,1)+j\*s(i);

% %此处找出h中 也就是血管内的变量中流出血管的值

% % %find(phantom\_positions(h,1)>20/1000 )这句已经把其重新排序了

% % h1=find(phantom\_positions(h,1)>20/1000 );

% % h3=h(h1);

% % %此处相当于就找出来原来在那里的值所对应的序号

% % phantom\_positions(h3,1)=-20/1000;

% end

% %找出那些是属于在选定范围内的

%%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*模块一：血流位移\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(result\_phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & result\_phantom\_positions\_xueliu(:,3)<(55.5/1000+dz\*i));

% result\_phantom\_positions\_xueliu(h,1)=result\_phantom\_positions\_xueliu(h,1)+(j-1)\*5\*s(i);

% end

%%\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*end\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

% for i=1:50%血流的位移量-血流在血管内部散射点向是向X轴变化

% h=find(result\_phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & result\_phantom\_positions\_xueliu(:,3)<(55.5/1000+dz\*i));

% result\_phantom\_positions\_xueliu(:,1)=result\_phantom\_positions\_xueliu(:,1)+5/1000;

% end

%找到属于-25/1000到25/1000之间的点

sum=0;

for i=1:50

%找出其中一线的所有点

h=find(result\_phantom\_positions\_xueliu(:,3)>=(55.5/1000+dz\*(i-1)) & result\_phantom\_positions\_xueliu(:,3)<(55.5/1000+dz\*i));

%找到其中索要截取的点

h2=find(result\_phantom\_positions\_xueliu(h,1)>=((-25/1000)-(j-1)\*s(i)) & result\_phantom\_positions\_xueliu(h,1)<((25/1000)-(j-1)\*s(i)));

%转换为原始向量中的点

h3=h(h2);

% h1=find(result\_phantom\_positions\_xueliu(:,1)>=(-25/1000-5/1000) & result\_phantom\_positions\_xueliu(:,1)<=(25/1000-5/1000));

% choose\_phantom\_positions\_xueliu=result\_phantom\_positions\_xueliu([h1],:);

% choose\_phantom\_amplitudes\_xueliu=result\_phantom\_amplitudes\_xueliu([h1],:);

% phantom\_positions\_zuzhi([zuzhi\_1],:)=choose\_phantom\_positions\_xueliu;

% phantom\_amplitudes\_zuzhi([zuzhi\_1],:)=choose\_phantom\_amplitudes\_xueliu;

sum=sum+length(h3(:));

end

phantom\_positions=phantom\_positions\_zuzhi;

phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

% choose\_phantom\_amplitudes\_xueliu=phantom\_amplitudes\_xueliu([h1],:);

% phantom\_amplitudes=[phantom\_amplitudes\_zuzhi;choose\_phantom\_amplitudes\_xueliu]

%%这么些有问题 因为相当于直接将全部都重新开始了 所以要先把血管内的跳出来

% %%%%%测试如果没有血流的样子

% phantom\_positions=phantom\_positions\_zuzhi;

% phantom\_amplitudes=phantom\_amplitudes\_zuzhi;

% %%%%%%%%

eval(['save pht\_data/pht\_data' num2str(j) ' phantom\_positions phantom\_amplitudes'])

end