function [vector\_inc,vector\_ref,vertical\_vector,parallel\_vector]=vector(intersect\_1st,intersect\_2nd,intersect\_2nd2,intersect\_3rd,intersect\_3rd2,intersect\_3rd3,perp\_vector,T0,R0)

%Ò»´Î·´ÉäÏµÊýµÄÊ¸Á¿

vector\_inc=zeros(6,3);

vector\_ref=zeros(6,3);

for ii=1:6

vector\_inc(ii,1:3)=intersect\_1st(ii,1:3)-T0(1:3);

vector\_ref(ii,1:3)=R0(1:3)-intersect\_1st(ii,1:3);

a0=sqrt(vector\_inc(ii,1)^2+vector\_inc(ii,2)^2+vector\_inc(ii,3)^2); %ÇóÈëÉäÂ·¾¶µ¥Î»·½ÏòÊ¸Á¿

vector\_inc(ii,1:3)=vector\_inc(ii,1:3)/a0;

b0=sqrt(vector\_ref(ii,1)^2+vector\_ref(ii,2)^2+vector\_ref(ii,3)^2); %Çó·´ÉäÂ·¾¶µ¥Î»·½ÏòÊ¸Á¿

vector\_ref(ii,1:3)=vector\_ref(ii,1:3)/b0;

end

for jj=1:6

a=perp\_vector(intersect\_1st(jj,6),1);

b=perp\_vector(intersect\_1st(jj,6),2);

c=perp\_vector(intersect\_1st(jj,6),3);

d=perp\_vector(intersect\_1st(jj,6),4);

vertical\_vector(jj,1:3)=cross([a,b,c],vector\_inc(jj,1:3)); %ÇóÈëÉä´¹Ö±¼«»¯·½Ïòµ¥Î»ÏòÁ¿

a0=sqrt(vertical\_vector(jj,1)^2+vertical\_vector(jj,2)^2+vertical\_vector(jj,3)^2);

vertical\_vector(jj,1:3)=vertical\_vector(jj,1:3)/a0; %ÇóÈëÉä´¹Ö±¼«»¯µ¥Î»ÏòÁ¿

parallel\_vector(jj,1:3)=cross(vertical\_vector(jj,1:3),vector\_inc(jj,1:3)); %ÇóÈëÉäÆ½ÐÐ¼«»¯·½Ïòµ¥Î»ÏòÁ¿

vertical\_vector(jj,4:6)=vertical\_vector(jj,1:3); %Çó·´Éä´¹Ö±¼«»¯·½Ïòµ¥Î»ÏòÁ¿

parallel\_vector(jj,4:6)=cross(vertical\_vector(jj,4:6),vector\_ref(jj,1:3)); %Çó·´ÉäÆ½ÐÐ¼«»¯·½Ïòµ¥Î»ÏòÁ¿

end