```
/*the Kernel Update*/
__global__ void Update_kernel(int size,cuDoubleComplex
*ZPrec,cuDoubleComplex *Z, Polynome P, Polynome Pu, int
start, int size2) {
int i= blockIdx.x*blockDim.x+ threadIdx.x+start;
if(i<start+size2 && i<size) {
Z[i]= H_gpu(i,Z,P, Pu);
}
}
/*device executed on GPU*/
__device__
cuDoubleComplex H_gpu(int i, cuDoubleComplex *Z,
cuDoubleComplex *Pcoef, int *Pdegre,int Pmonome,int
PdegrePolynome, cuDoubleComplex *PPcoef, int
*PPdegre,int PPmonome,int PPdegrePolynome,int
*fini,double rayonMax,int iter) {
cuDoubleComplex c;
if(!fini[i]) {
if (cuCmodule(Z[i])<=rayonMax){
c=
FirstHEA_gpu(i,Z,Pcoef,Pdegre,Pmonome,PdegrePolynome,
PPcoef,PPdegre,PPmonome,PPdegrePolynome,fini);
}
else {
c=
NewHEA_gpu(i,Z,Pcoef,Pdegre,Pmonome,PdegrePolynome,
PPcoef,PPdegre,PPmonome,PPdegrePolynome);
}
return c;
}
else
return Z[i];
}
```