Good morning! Thank you give me the opportunity to attend the interview. I am very excited about this meeting and to be honestly a little nerves , I am not sure what kind of form the interview will be, so I prepared a brief introduction of my research program until now. Should I give a brief report about my research ? 10 mintus

During my PDH period, I am going to break my research into two parts, simulation and experiment. For simulation part, I development 3d ray-tracing code for our ecei diagnostic system (object-oriented programming), so we can determined where the radiation comes from in the plasma, and we could have correct imaging position based on the ray-tracing code. The second simulation works is on the kinetic simulation, which demonstrate the electron velocity distribution evolution under plasmas environment. Since our electron cyclotron emission is sensitive to the electron cyclotron velocity, combined with our synthetic diagnostic, we can convert the electron velocity distribution to electron cyclotron emission intensity, and than we can compare with the experiment results, and analysis the hidden physics process for abnormal emission. And the last important simulation works for me is 2D FDTD to verify the transmission effect on grove surface. I know it can be down by software like HFSS and CST , but writing this program can help me to extend the simulation in the plasma environment. This is the main part of my simulation works.

My second part is about the experiment experience, This part includes the design ECEI and MIR platform in EAST hall, the antenna shielding box for ECEI, Optical setup for MIR illumination system and experiment data analysis. I am the main responsible person to take charge of the designation, fabrication and install the platform. Location of between …… contamination, well protected. The optical can shape the illumination wavefront curvature couple with cutoff surface in the plasma, so when we receive the reflect wave, we can avoid doppler shift from the rotation of the cutoff layer in the plasma.

The third part is working at UC Davis, mainly about two laser system: FIReTIP(Far-infrared Tangential Interferometer/Polarimeter) system and high-k scattering laser system. I worked on the laser optimization, laser control and optical alignment with our group team. I also written LaBVIEW program to control and monitor the laser operation and working parameters. I also written a FDTD code for simulating wave propagation in the plasma, for example this is one example for simulation the ultra short plus reflectometry simulation. So we can analysis experiment results under different plasma profile.

I hope my experience and knowledge can contribute to your company and works together for our fusion dream.

**Good morning!**  
Thank you very much for giving me the opportunity to attend this interview. I’m truly excited to be here. To be honest, I’m also a little nervous, because I’m not completely sure about the format of the interview. So, to be prepared, I’ve organized a brief presentation about my research experience.  
**If it’s acceptable, I can give a short 10-minute overview of my work.**

During my PhD, my work can be divided into **two major parts: simulation and experiment.**

**1. Simulation Work**

* I developed a **3D ray-tracing code** for our ECEI diagnostic system using object-oriented programming. This tool allows us to identify where the radiation originates inside the plasma, and to accurately determine the imaging location.
* I also performed **kinetic simulations** to study the evolution of the electron velocity distribution in a plasma environment. Since electron cyclotron emission (ECE) is sensitive to electron velocity, I combined these simulations with synthetic diagnostics to convert velocity distributions into ECE intensity. This helps us compare with experimental data and analyze abnormal emission mechanisms.
* In addition, I wrote a **2D FDTD code** to study wave transmission over grooved surfaces. Although commercial software like HFSS or CST can also do this, writing my own code allows me to extend it later into plasma conditions.

#### ****2. Experimental Work****

I have strong hands-on experience in diagnostics development:

* I participated in the **design, fabrication, and installation** of the ECEI and MIR platforms at the EAST tokamak hall.
* I was responsible for building the **antenna shielding box**, designing the **optical setup** for MIR illumination, and performing **experimental data analysis**.
* The optical system was designed to match the wavefront with the plasma cutoff surface, allowing us to receive reflected signals without Doppler shift caused by plasma rotation.