Deutsches Eelektronen-Synchrotron
Center for Free Electron-Laser Science
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Doctoral Studies

The Coherent Imaging Division, an experimental research group within the Center for Free Electron Laser Science (CFEL) at the Deutsches Elektronen-Synchrotron (DESY), seeks exceptional candidates for PhD positions. Students who join our group will obtain first-hand cutting-edge research experience in an international and interdisciplinary setting. In addition, graduates will have access to world-class scientific facilities and an array of professional development opportunities while working side by side with leaders in the scientific community.

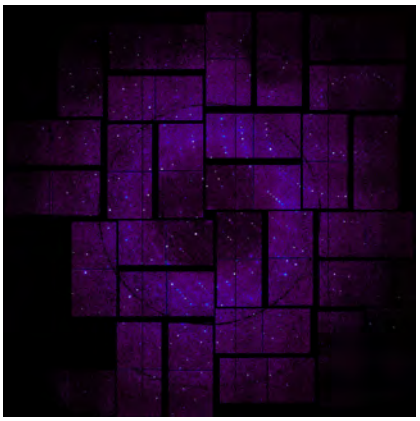
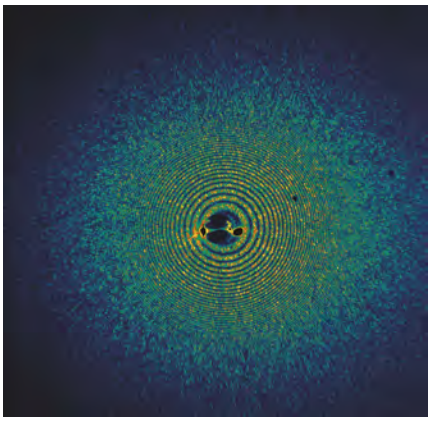
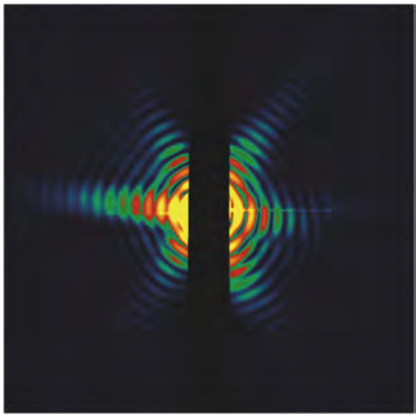
Our Work

The Coherent Imaging group develops innovative methods for imaging molecules and bioparticles with the use of X-ray free electron lasers (the world's brightest X-ray sources) and synchrotron facilities. These modern light sources produce ultra-short and ultra-intense X-ray pulses, enabling our team to take stop-motion pictures of molecules and bioparticles, shedding light on their fundamental mechanisms.

Research Projects

Our PhD positions are designed to address challenges in the field of ultrafast coherent diffractive imaging. We offer specific PhD projects in the following topics:

- Extreme X-ray intensity protein crystallography
- Imaging 2D and helical protein crystals by coherent X-ray diffraction
- Single-particle coherent diffractive imaging
- Time-resolved nanocrystallography
- New strategies for solving the phase problem with serial femtosecond crystallography
- Nucleation and growth of protein nanocrystals

Program Details

The doctoral program is a collaboration with CFEL/DESY and the University of Hamburg. PhD students are to conduct original research under the guidance of Professor Henry Chapman, Coherent Imaging Division Director and Faculty member at University of Hamburg. Academic studies and skills development will be determine on a case-by-case basis depending on education and work background. Students who complete their research thesis, which normally takes 3 years, will receive a doctorate from the University of Hamburg. The degree awarded upon successful completion is a “Dr.rer.nat” which is the German equivalent to the American “PhD” title.

Finance

Students pursuing doctoral studies in German public universities do not pay tuition fee for the first six semesters (3 years). Additional funding for living expenses is available.

Requirements

We are looking for talented and highly motivated individuals with a background in physics, biophysics, or a related field. Candidates must hold a Master’s degree or a comparable degree in one of those areas. Candidates must also have good verbal and written English skills.

Application Information

We are currently accepting applications. Our initial closing deadline is January 31, 2013. Applications will continue to be accepted and considered until the search is closed. Interested candidates are encouraged to apply as early as possible. In order to apply, please send a cover letter, curriculum vitae, a list of publications (if applicable), and 2 letters of recommendation to:

Dr. Henry Chapman
c/o DESY, CFEL
Notkestraße 85
22607 Hamburg, Deutschland
Fax: +49 (0)40 8994 4155
Email: henry.chapman@desy.de

We appreciate your interest and highly encourage candidates that meet our criteria to apply. To learn more information about the Coherent Imaging Division’s scientific work, published articles and team members please visit our website at http://desy.cfel.de/cid/.

If you have any questions, please contact:

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Dr. Henry Chapman, Coherent Imaging Division Director
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