



INVESTICE DO ROZVOJE VZDĚLÁVÁNÍ



ELI-Beamlines will be the high-energy, repetition-rate laser pillar of the ELI (Extreme Light Infrastructure) project. It will be an international facility for both academic and applied research, slated to provide user capability. The main objective of the ELI-Beamlines Project is delivery of ultra-short high-energy pulses for the generation and applications of high-brightness short pulse X-ray sources and accelerated particles. The laser systems will be delivering pulses with length ranging between 10 and 150 fs and will provide high-energy Petawatt and 10-PW peak powers. Within the project “Strengthening capacity of research teams in the field of physical sciences” realized by the Institute of Physics AS CR, v.v.i. we are seeking a candidate for the position of:

Postdoctoral Fellow

“Design of an intense high order harmonic soft x-ray beamline”

The postdoctoral fellow will focus on the design and the realization of a long focal length geometry high order harmonic beam-line. The motivation is to produce a high intensity soft x-ray beam using a 200 mJ, 1 kHz, 20 fs laser that will be built in the frame of the ELI-Beamlines project.

The applicant should have obtained a PhD degree, mainly on experimental physics. We expect from the candidate a theoretical knowledge and demonstrated practical experimental skills in the field of high-power laser-plasma interaction, nonlinear optics and soft x-ray generation. An additional knowledge about soft x-ray techniques and diagnostics will be an advantage. The candidate must also have some experience in managing of interdisciplinary research, in particular in planning and organization of experiments using lasers. The applicant will have to work in a wide environment (different laser facilities) in order to actively participate in the different collaborations involved.

Key Responsibilities:

1. Realization of research tasks assigned by the Mentor.
2. Advising, training, and educating students (3 hours per week).
3. Research stay in selected world-class institutions outside Czech Republic (50 days per year).
4. Publishing in SCI journals.

Key Requirements:

1. Ph.D. in natural sciences or applied sciences or engineering gained within the last 3 years.
2. English language on a very good level (written and spoken).
3. Strong motivation for work and loyalty.

4. Excellent communication and organizational skills.
5. Team player, feel a sense of accomplishment.
6. Willing to travel.

We Offer:

1. Monthly salary of up to 2.400 EUR depending on the quality of candidate.
2. 36 months contract.
3. 5 weeks of holidays.

Requested Documents:

1. CV (English).
2. List of publications (English).
3. Recommendation Letter (English or Czech).
4. Motivation Letter (English).
5. Copy of Ph.D. diploma or certificate (English or Czech)
6. Copy of Ph.D. thesis (hard copy or electronic version)

Deadline: 30 November, 2012

Contact:

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POSITION 2

ELI-Beamlines will be the high-energy, repetition-rate laser pillar of the ELI (Extreme Light Infrastructure) project. It will be an international facility for both academic and applied research, slated to provide user capability. The main objective of the ELI-Beamlines Project is delivery of ultra-short high-energy pulses for the generation and applications of high-brightness short pulse X-ray sources and accelerated particles. The laser systems will be delivering pulses with length ranging between 10 and 150 fs and will provide high-energy Petawatt and 10-PW peak powers.

Postdoctoral Fellow

“Design and realization of x-ray sources from laser driven relativistic electron beams”

The postdoctoral fellow will focus on the design and the realization of Betatron and Compton x-ray sources produced by the interaction of an ultra-intense laser and a gas target.

The applicant should have obtained a PhD degree, mainly on experimental physics. We expect from the candidate a theoretical knowledge and demonstrated practical experimental skills in the field of high-power laser-plasma interaction, electron acceleration processes and x-ray generation. An additional knowledge about hard x-ray techniques and diagnostics will be an advantage. The candidate must also have some experience in managing of interdisciplinary research, in particular in planning and organization of experiments using lasers. The applicant will have to work in a wide environment (different laser facilities) in order to actively participate in the different collaborations involved.

Key Responsibilities:

5. Realization of research tasks assigned by the Mentor.
6. Advising, training, and educating students (3 hours per week).
7. Research stay in selected world-class institutions outside Czech Republic (50 days per year).
8. Publishing in SCI journals.

Key Requirements:

7. Ph.D. in natural sciences or applied sciences or engineering gained within the last 3 years.
8. English language on a very good level (written and spoken).
9. Strong motivation for work and loyalty.
10. Excellent communication and organizational skills.
11. Team player, feel a sense of accomplishment.
12. Willing to travel.

We Offer:

4. Monthly salary of up to 2.400 EUR depending on the quality of candidate.
5. 36 months contract.
6. 5 weeks of holidays.

Requested Documents:

7. CV (English).
8. List of publications (English).
9. Recommendation Letter (English or Czech).
10. Motivation Letter (English).
11. Copy of Ph.D. diploma or certificate (English or Czech)

12. Copy of Ph.D. thesis (hard copy or electronic version)

Deadline: ???, 2012

Contact:

Mirka Svobodová

Phone: +420 733 690 901 Email: svobodova@fzu.cz