



Bureau International des Poids & Mesures

Job Vacancy

Principal Physicist for mass metrology and watt balance experiment

The International Bureau of Weights and Measures (BIPM) in Sèvres, France, is an intergovernmental scientific organization whose mandate is to provide the basis for a coherent system of measurements throughout the world, traceable to the International System of Units (SI). It has an international staff of around 80 and an annual budget of about 13 million Euros. Further information about the BIPM can be found on the website: www.bipm.org.

The Mass Department is one of the five scientific departments at the BIPM. It currently has a staffing of 3 physicists, 2 assistants and 2 technicians, one of which works at the Mass Department on a half-time basis. The post-holder will fill a physicist position which becomes vacant in October 2010. Since 1889, the definition of the kilogram has been based on an artefact maintained at the BIPM. The kilogram definition may well change in the near future, so that it will be based on fundamental constants of physics. The BIPM already has programmes underway to meet this challenge and to satisfy the needs of its Member States and the wider metrology community through development of a "watt balance" and a highly stable pool of mass artefacts.

Closing date: 23 July 2010

Duties

Under the supervision of the Director of the Mass Department, the Principal Physicist shall participate in research and development of both a watt balance and stable artefact mass standards for use in disseminating mass values based on the new definition of the kilogram.

Among the duties of the Principal Physicist will be:

- development of mathematical models to predict changes in the mass of the weights constituting a pool of artefacts;
- participation in worldwide mass dissemination by playing an active role in the BIPM "watt balance" and the "pool of artefacts" projects;
- evaluation of the uncertainty components inherent in the practical realization of the new kilogram definition to the highest possible accuracy;
- participation at a technical level in other relevant research in the Mass Department;
- technical supervision responsibility.

Qualifications

Applicants should have:

- A Ph.D. or equivalent research experience, and a broad knowledge of the physical sciences;
- Significant experience of mass metrology preferably gained at a national metrology institute, especially at the level of 1 kg;
- Some knowledge of watt balances or similar devices;
- An international scientific reputation attained through relevant publications;
- Experience with a Quality System;
- A fluent level of spoken and written English, and a working knowledge of French, fluent French would be an asset;
- Ability to work in a multicultural environment and to maintain good working relations inside and outside the organization.

Employment conditions

The BIPM offers a full-time indefinite-term appointment. The BIPM offers remuneration and conditions of employment detailed in its *Staff Regulations, Rules and Instructions*, which are comparable with those of other international organizations based in France. It manages its own contributory pension scheme and subscribes to a private medical insurance for its staff and their families.

Applications

The BIPM encourages applications from both women and men with relevant qualifications. A full *Curriculum Vitae* (C.V.) and covering letter should be sent by paper mail to the Director, BIPM, Pavillon de Breteuil, F-92312 Sèvres Cedex, France, by **23 July 2010**, with a copy by email to: Idelloro@bipm.org. The selected applicants may be requested to take a test and only shortlisted applicants will be invited for an interview. Applications should include the names of two referees who will be asked to comment upon the candidate's suitability for the post. Requests for additional information may be addressed to Dr Richard Davis, Director of the Mass Department: rdavis@bipm.org.