



## **Open CERN Technical Fellowship in Experimental Nuclear Physics at ISOLDE**

ISOLDE / CERN is inviting applications to the open position of a CERN Technical Fellow in experimental nuclear physics. We are looking for an excellent researcher to lead the development of a Multi Reflection Time of Flight (MR-ToF) device operating at an unprecedented ion beam energy of 30 keV. Such a device offers unique opportunities for fast and selective mass separation of short-lived radioisotopes in the future general purpose ISOLDE MR-ToF device as well as for highly sensitive collinear laser spectroscopy.

The latter is pursued at ISOLDE within the ERC supported *Multi Ion Reflection Apparatus for Collinear Laser Spectroscopy (MIRACLS)*. While preserving the high resolution of conventional collinear laser spectroscopy, the novel MIRACLS approach promises significant gains in experimental sensitivity in order to study the most exotic nuclides available at contemporary radioactive ion beam facilities such as ISOLDE at CERN.

As isobaric contamination represents a major experimental challenge, especially when probing exotic nuclides far away from stability, the ultimate goal of the ISOLDE MR-ToF device is to provide isobarically clean beams to the ISOLDE user community.

The successful candidate will play a central role in the design, construction, and commissioning of the novel MR-ToF apparatus. In particular, she/he will lead the R&D programme towards the fast and selective mass separation in the 30-keV MR-ToF device, including its fast online application.

Candidates are expected to hold (at the time of their job appointment) a Ph.D. degree in experimental nuclear or atomic physics, ideally with a strong technical experience in design, construction, and operation of ion traps. Know-how in ultra-high-vacuum technology, high-voltage applications, design of experiment control systems, as well as (collinear) laser spectroscopy will be of advantage.

The appointment is initially for two years with the possibility of an extension based on continued funding and mutual agreement.

### **Interested candidates for these positions are invited to contact**

Stephan Malbrunot-Ettenauer ([stephan.ettenauer@cern.ch](mailto:stephan.ettenauer@cern.ch)) and  
Gerda Neyens ([gerda.neyens@cern.ch](mailto:gerda.neyens@cern.ch))

Candidates are invited to submit their application material for CERN's Senior Fellowship Programme via

<https://careers.smartrecruiters.com/CERN/fellowships>

which also provides general information about CERN fellowships. The next open call has its **deadline on 4.03.2019**. Please indicate your interest in the 'ISOLDE MR-ToF' in your application material and inform Stephan Malbrunot-Ettenauer and/or Gerda Neyens that you have applied for the position.

