

## Call for contribution of expertise

CERN invites collaborating institutes and universities to contribute the expertise of their qualified employees to the activity described below.

*Start date:* Asap

*Duration:* One year, possible extension to a maximum of up to three years.

*Project/Activity:* Engineer / Physicist for the COLD bore Experiment, COLDEX

### *Detailed description of Activity:*

The COLD bore EXperiment, COLDEX, is an experimental system that mimics a LHC type cryogenic vacuum chamber. It is currently installed in the SPS to study the interplay of the electron cloud induced by LHC beams with the cryogenic vacuum system.

- Install new instruments and, in particular, Laser Engineered Structured Surfaces beam screens at the COLDEX.
- Coordinate and operate the COLDEX during the year.
- Analyse, present and publish data.
- Evaluate the impact of the observations on the HL-LHC vacuum system.
- Propose potential upgrades to the COLDEX and/or HL-LHC.

*Profile:* Mechanical/Electrical/Aeronautical engineer or Physicist. Experience with ultra-high vacuum systems is needed. Ability or commitment to learn data acquisition and data analysis software is desired. Knowledge of cryogenics together with the coordination and operation of systems in an accelerator environment are assets.

*Specific details:* Good working knowledge of either English or French.

*Status at CERN:* Associated Member of the Personnel (Project Associate).

Conditions in accordance with CERN's Staff Rules and Regulations and Administrative Circular No. 11. Subsistence allowance is payable by CERN to cover the additional cost arising from the individual's (and, as applicable, their family's) stay in the local area while performing activities at CERN.

*Option:* Collaborating institutes and universities are encouraged to support the activity of the qualified employees participating in this "Call for contribution of expertise" with students or other employees. Their status and Subsistence allowance when applicable will be adapted to their relation with their institutions

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*Reference:* 2017\_2Q\_010