



Contribution ID: 23

Type: **Talk**

Progress in Development of ITER Diagnostic Infrastructure

Thursday, 4 October 2018 12:40 (20 minutes)

Integration of diagnostics in the ITER complex is a very important task that requires interfaces with other systems, like vacuum vessel, port plugs, buildings, vacuum systems and remote maintenance. The latter is particularly important as many diagnostics will have to be handled remotely during installation/removal, in order to carry out refurbishment, environmental and functional tests in the Hot Cell Facility outside the tokamak. Another very important design driver for diagnostics is occupational safety and occupational radiation exposure for workers who will have to perform hands-on maintenance operations. Finally, various parts of ITER diagnostic systems will experience different load conditions, arising from electromagnetic events (during disruption), thermal and neutronic heating, and seismic events. At the same time, it is imperative to ensure that diagnostics will be able to fulfil their measurement roles during operation of ITER.

The current status of the diagnostic infrastructure development, as well as the integration activities, will be presented.

Summary

The current status of the ITER diagnostic infrastructure development, as well as the integration activities, will be presented.

Primary author: Dr UDINTSEV, Victor (ITER Organisation)

Co-authors: Mr NAGY, Daniel (ITER Organization); Mr GUIRAO, Julio (ITER Organization); Dr WALSH, Michael (ITER Organization); Mrs IGLESIAS, Silvia (ITER Organization); Mr PAK, Sunil (ITER Organization); Mr GIACOMIN, Thibaud (ITER Organization)

Presenters: Dr WALSH, Michael (ITER Organization); Dr UDINTSEV, Victor (ITER Organisation)

Session Classification: Diagnostics for fusion reactors