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## Status of IDs at the ESRF

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One year after the inauguration of the ESRF, 29 undulators and wigglers are in operation. The majority are conventional permanent magnet vertical field undulators. A few special devices have been installed which include three variable polarization helical undulators, a 5 T three pole superconducting wiggler and a small gap undulator which can be operated at a 7 mm gap.

With the new low emittance lattice (4 nm horizontal and 40 pm vertical) a brilliance of  $4 \times 10^{19}$  ph/s/0.1%/mm<sup>2</sup>/mrad<sup>2</sup> has been reached by operating two segments of undulator at a photon energy of 12 keV.

All insertion devices have been designed, built and field measured by the ESRF ID group. A special shimming technique has been developed which allows the removal of all normal and skew integrated multipoles at any gap values as well as ensuring maximum brilliance on the high harmonic number of the spectrum.

Recently new designs of the extremities have been proposed which allow the operation of hybrid wiggler without coil correction and phased permanent magnet undulators. The new phasing section allows the operation of variable length undulators in a very simple manner.