## List of LLB instruments scheduled for external users

3T2	<b>Powder diffractometers</b> "Thermal neutrons" 2-axis (20 detectors) high resolution, mainly for nuclear structure determination	DI (G
G4.1	"Cold neutrons" 2-axis (multidetector 800 cells) high flux, mainly for	EF
G4.2	"Cold neutrons" 2-axis (7x10 detectors) high resolution, for structure	P/
MICRO	"Cold neutrons" 2-axis (multidetector 400 cells) with long	(G
(G6.1)	wavelength (~5A) and high flux, for the study of very small powder samples (<1 mm <sup>3</sup> ). Very high pressure cell available (40 GPa).	17
	Diffractometers for material science studies	
611 DIANE	"I hermal neutrons" 4-circle for texture determination "Cold neutrons" 2-axis for internal strain mapping in bulk	21
(G5.2)	samples with spatial resolution ~ 1 mm <sup>3</sup> .	4F
5C1	Single crystal diffractometers "Hot neutrons" 2-axis with lifting arm, polarised neutrons, magnetic field	
502	(8 Tesla) for spin-density maps determination	40
6T2	"Thermal neutrons" 2-axis, lifting arm and 4-circle, mainly for magnetic	41
	structure determination. 12 Tesla magnetic field available	G
7C2	Diffuse scattering instruments "Hot neutrons" 2-axis (multidetector 640 cells) for local order studies in	
G4.4	liquid or amorphous systems. Cryostat and furnace available (1.2K to 1300°C). "Cold neutrons" 2-axis (48 detectors, elastic/inelastic discrimination by	м
	time-of-flight technique) for local order studies in single crystals. Furnace	G
	Small angle coefficient instruments	M
PACE	"Cold neutrons" (annular detector, 30 rings) for study of large scale structures in	(G
(G1.1) PAXY	isotropic systems (mainly polymers and colloids). "Cold neutrons" (X-Y detector, 128x128 cells) for study of large-scale structures	
(G2.3)	(10 to 500 Å) in anisotropic systems (polymers under	
PAXE	stress, metallurgical samples, vortex in superconductors ). "Cold neutrons" (X-Y detector, 64x64 cells) for multipurpose	
(G5.4)	studies of large scale structures	

## Reflectometers

DESIR (G5bis) EROS (G3bis)	"Cold neutrons" reflectometer operating in time-of-flight mode (X-Y multidetector 128x128 cells) for horizontal samples (liquids). "Cold neutrons" reflectometer operating in time-of-flight mode for multipurpose surface studies.
PADA (G2.4)	"Cold neutrons" reflectometer with polarised neutrons and polarisation analysis for the study of magnetic layers.
1T	Triple-axis instruments "Thermal neutrons" high-flux 3-axis instrument with focusing monochromator and analyser, mainly devoted to spin-waves and magnetic excitations studies (1.5 to 80 meV).
2T	"Thermal neutrons" high-flux 3-axis instrument with focusing mono- chromator and analyser, mainly devoted to phonon dispersion curves measurements. Very high pressure cell (100 Kbar) available.
4F1	"Cold neutrons" high flux 3-axis instrument with double monochromator and analyser, mainly devoted to the study of low-energy (15μeV to 4meV) magnetic excitations. Polarised neutrons and polarisation analysis option available. "Cold neutrons" high-flux 3-axis instrument for the study of low-energy
4F2	excitations (e.g. soft modes) or modulated structural studies in single crystals. "Cold neutrons" high resolution and low background 3-axis instrument
G4.3	mainly devoted to elastic diffuse scattering studies.
	Quasi-elastic instruments "Cold neutrons" high resolution (~15 μeV at 10Å) time-of-flight
MIBEMOL G6.2	instrument for the study of low energy excitations, mainly in disordered systems.
MESS (G3.2)	"Cold neutrons" small-angle high resolution spin-echo instrument, for the study of slow dynamics (Fourier time ~40 ns) of disordered matter (movements of large molecules in biology or physical chemistry, relaxation of magnetic moments).