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Recent developments at the pulsed magnetic field facility of the LNCMI

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The Laboratoire National des Champs Magnétiques Intenses (LNCMI) is a French host facility for experiments in high magnetic fields. LNCMI is a member of the European Magnetic Field Laboratory (EMFL) with the Hochfeld-Magnetlabor in Dresden (HLD) and the High Field Magnet Laboratory in Nijmegen (HFML). The Toulouse facility is dedicated to the generation of pulsed magnetic fields. It offers 98.8 T nondestructively and 209 T with a semi destructive Megagauss installation. We focus here on the nondestructive activities. All the electromagnets that generate these high fields and their associated capacitor banks are developed in the laboratory. We present here some recent developments, as the operation of a 100 T magnet, the design of new capacitor banks and some ways to push the limits of nondestructive pulsed magnetic field above the actual 100.75 T world record.

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