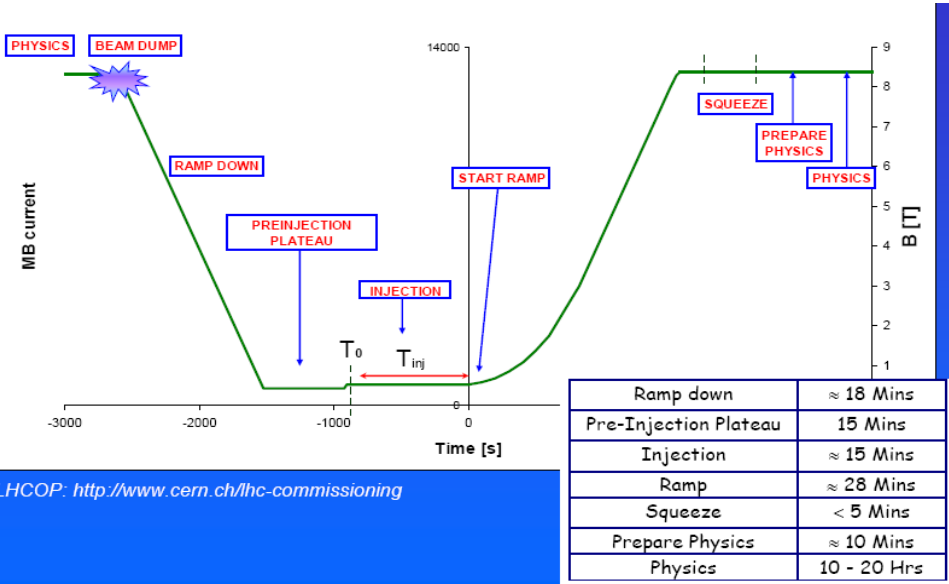


# LHC FREQUENCIES



## PROTONS

### 7TeV

		Injection 450GeV	Physics 7TeV	$\Delta$
<b>BC</b>	<b>Frequency</b>	40.0788790 MHz	40.0789658 MHz	87 Hz
	<b>Period</b>	24.950798ns	24.950743ns	0.054 ps
<b>Orbit</b>	<b>Frequency</b>	11.245477kHz	11.245501kHz	
	<b>Period</b>	88.924643us	88.924450us	193ps

## IONS

### 7TeV

		Injection 450GeV	Physics 7TeV	$\Delta$
<b>BC</b>	<b>Frequency</b>	40.0784139 MHz	40.0789639 MHz	550 Hz
	<b>Period</b>	24.951087ns	24.950745 ns	342 ps
<b>Orbit</b>	<b>Frequency</b>	11.245346kHz	11.245501kHz	
	<b>Period</b>	88.925676us	88.924451us	1.225ns