

## Dependence of sensor temperature of 2011

End of	Int. Lum. [ $\text{fb}^{-1}$ ]	$V_d$ [V] with $-15^\circ\text{C}$ in 2011	$V_d$ [V] with $+20^\circ\text{C}$ in 2011
0 <sup>th</sup> year (2009)	0.0	65.0	65.0
1 <sup>st</sup> year (2010)	0.5	64.5	64.5
2 <sup>nd</sup> year (2011)	0.5	64.5	64.3
3 <sup>rd</sup> year (2012)	3.8	61.4	61.2
4 <sup>th</sup> year (2013)	18.8	48.8	48.5
5 <sup>th</sup> year (2014)	37.8	35.3	35.1
6 <sup>th</sup> year (2015)	78.8	14.0	13.8
7 <sup>th</sup> year (2016)	120.8	2.9	3.2
8 <sup>th</sup> year (2017)	219.8	31.3	31.5
9 <sup>th</sup> year (2018)	351.8	65.4	65.6
10 <sup>th</sup> year (2019)	483.8	102.4	102.7
11 <sup>th</sup> year (2020)	628.8	145.9	146.1
12 <sup>th</sup> year (2021)	821.8	203.3	203.5

Remember this !

## Effect of shutdown with SCT warm-up days

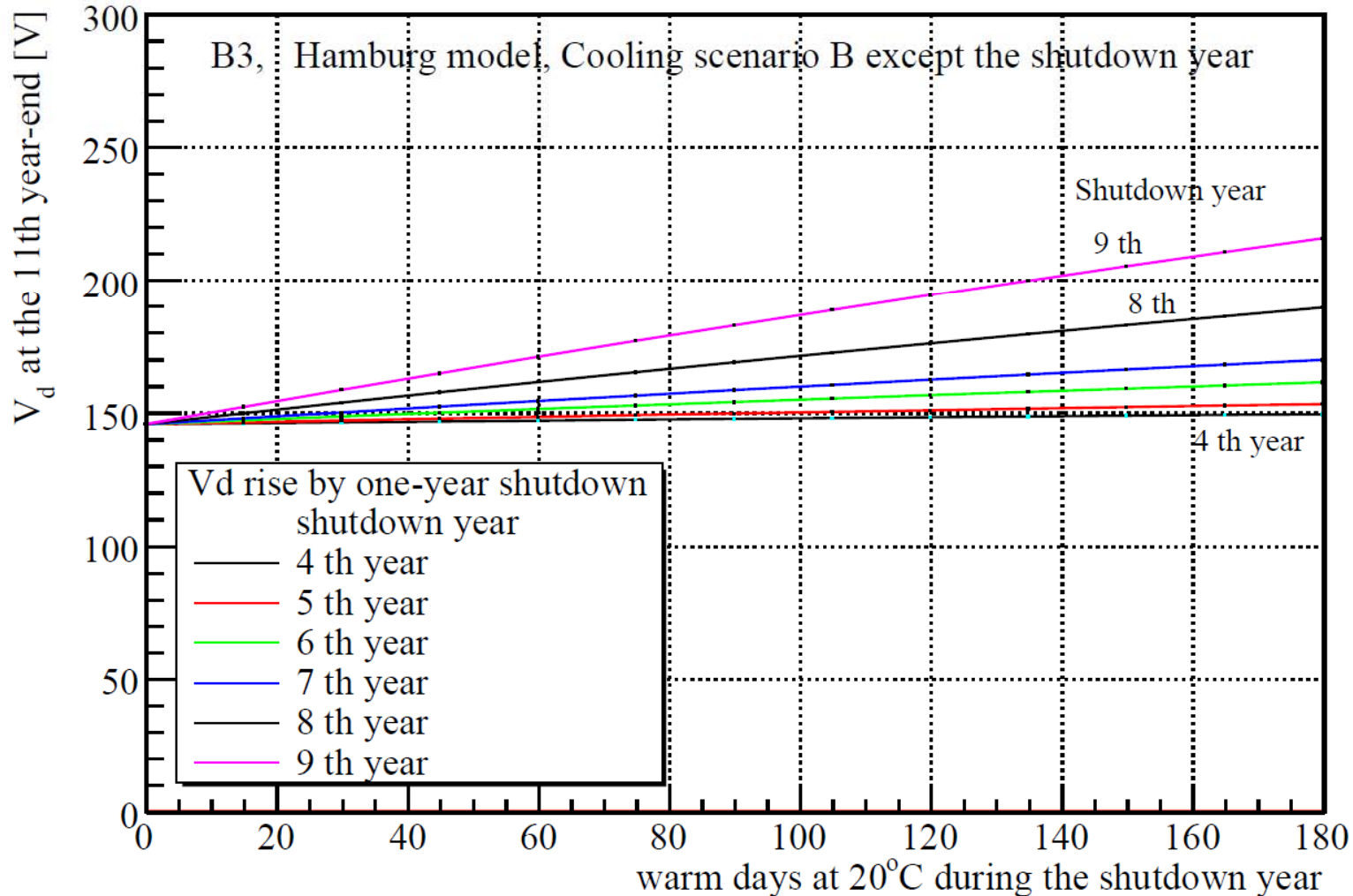


Fig. 20 : One full-year shutdown is inserted at n-th year, during which the SCT is kept at -22°C except warm-up days at 20°C. The luminosity profile is kept same (except one year delay after the shutdown year).