

Instructions for Restoring Old Tune Archives in AGS

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During the 2006 Summer shutdown, the effective strength of the vertical tune quadrupoles in AGS was increased by a factor of 1.5. This means that to obtain the same tunes for any functions archived before the change, one must multiply the A_{12} and A_{22} coefficients in the AGS Optics Control program by 1.5 and re-calculate the currents for the given archived tunes. Here in detail is what to do:

1. In AGS Optics Control check to make sure that the button in the lower right-hand corner is in the “Current from Tune” mode. (This is the default mode.)
2. Select a tune function archived before the change in the vertical quadrupoles.
3. Click on “Function” and then “Matrix Functions”.
4. Change the A_{12} and A_{22} coefficients to 1.5 times their archived values.
5. Click on “Function” and then “Working Line”. You should then find that the tunes and horizontal current have stayed the same, but the vertical current has gone down by a factor of 1.5 (to compensate for the increase in A_{12} and A_{22}).
6. If you are satisfied that the expected changes have occurred, click on “Make Live” and save the new function.

That is all there is to it.