Possible improvement of XBppm.

S. MATSUMOTO

• Magic 2D simulation shows some particles hit the wall at the output structure.
  \[ \text{local} \rightarrow \text{solenoid field in the output structure.} \]

• Cavities are tuned to improve the rf-current growth and wider frequency range.

  Work is now doing at BINP and KEK.
RF Current
PPM Klystron
80W input

Current (Ampere)

z (mm)

DC Current = 374A, Output Power = 75.8 MW

Sudden drop caused by particle being hit the wall.
Caption: PHASESPACE Plot 1 at Time 8.666 ns

Processing: Particle Species: ALL

Author: V. Teryoev

Device:

Date: 06/18/98 Time: 19:18

File: Output.mgc

Run No: 1 Page: 5
Magnetic field

\begin{align*}
\text{Bmax}=2.5\text{kGs} \\
\rho_{\text{out}} &= 92 \text{ MW} \\
\text{Bmax}=3.2\text{kGs} \\
\rho_{\text{out}} &= 85 \text{ MW} \\
\text{Bmax}=3.8\text{kGs} \\
\rho_{\text{out}} &= ?? \text{ MW} \\
\text{Bmax}=4.5\text{kGs} \\
\rho_{\text{out}} &= 73 \text{ MW}
\end{align*}