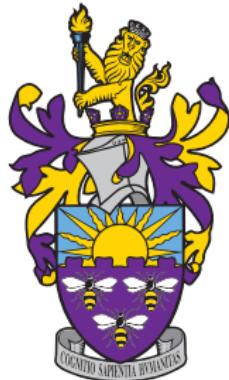


Beam dump - hybrid scheme

Oscar Jakobsson

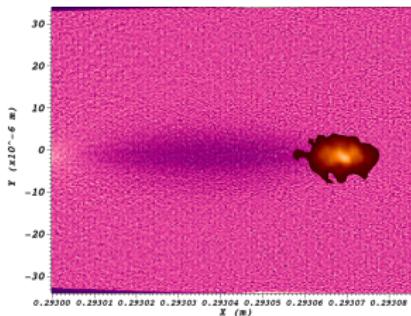
November 14, 2018



- Passive beam dump



Saturation (~ 30 cm)



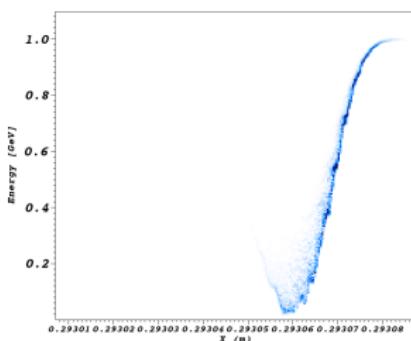
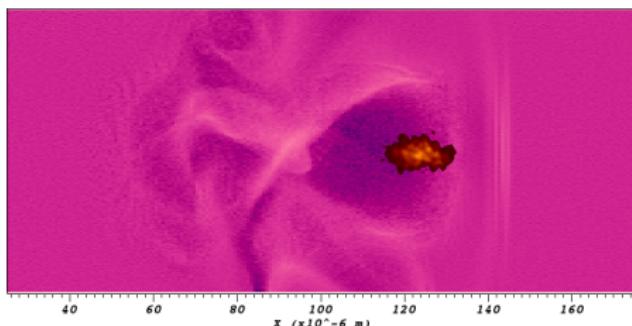
- Laser pulse



- Active beam dump



Full dump (\sim a few cm?)



- Aim to dump *EuPRAXIA* beam

- 30 pC
 - 1 GeV
 - Expand bunch
- $$\left. \begin{aligned} \sigma_x &= 0.3\mu m \rightarrow 5\mu m \\ \sigma_x &= 0.3\mu m \rightarrow 5\mu m \end{aligned} \right\} \Rightarrow n_p \sim 10^{18} \text{ cm}^{-3}$$