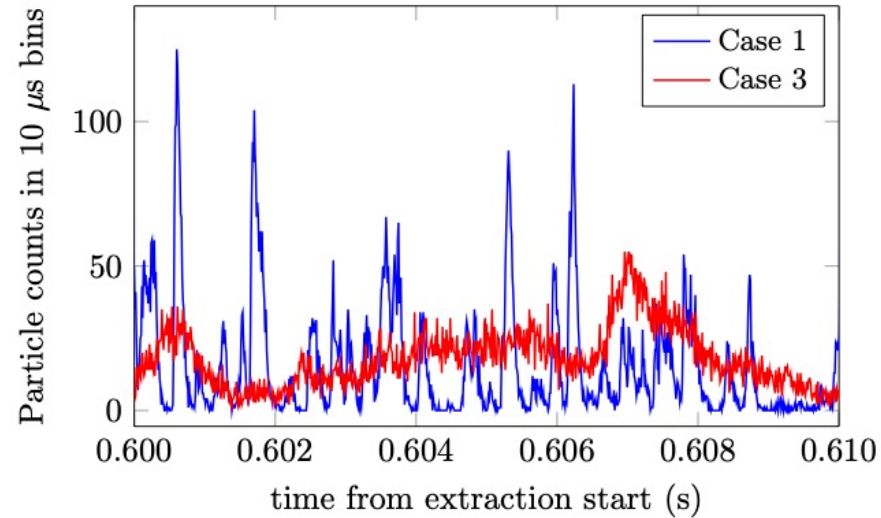
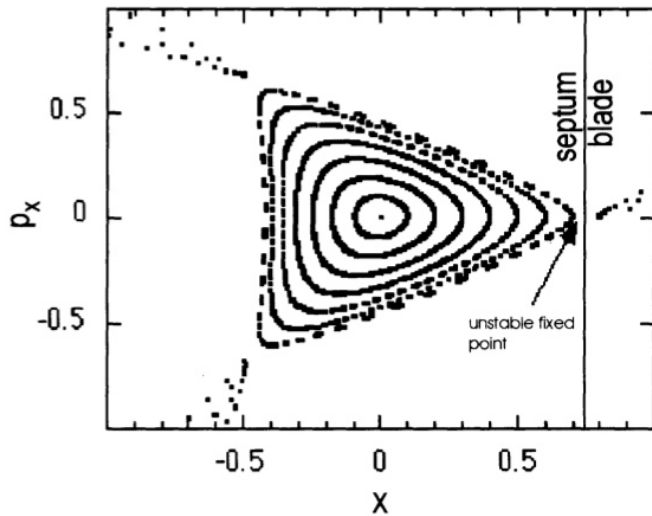


Measurement and optimization of the spill structure from slow extraction

GSI SIS-18: Significant data quality loss because of micro-spill structure.



micro-spill
structure
from SIS-18

CBM@SIS-100: 'smoothed' spill structure required

Measurement of the spill structure:

Development of a dedicated diamond detector with a count rate of $10^8/\text{s}$ (ns timing).

Smoothing the spill structure:

Simulation studies of tune modulation¹, high-frequency cavities and other measures

[1] R. Singh, P. Forck, S. Sorge, Phys. Rev. Applied (2020)