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Emittance Tomography with multiple wire scanners at RAON facility

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Emittance is one of the most important beam parameters in accelerators. Therefore, many emittance measurement methods such as Allison-type scanners, pepper pots, slit-scan methods, quadrupole scan methods, etc. have been widely used. In the case of the RAON heavy ion accelerator, an Allison-type emittance scanner is installed at the low-energy beam transport section. However, there is no other equipment that can measure 2D phase space downstream. To complement the measurements by the Allison-type emittance scanner, we suggest the emittance tomography with multiple wire scanners. By using feedback loop and tracking simulations, we reconstruct the 2D phase space of the beam and discuss the emittance evolution.

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Footnotes

I have read and accept the Privacy Policy Statement

Yes

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