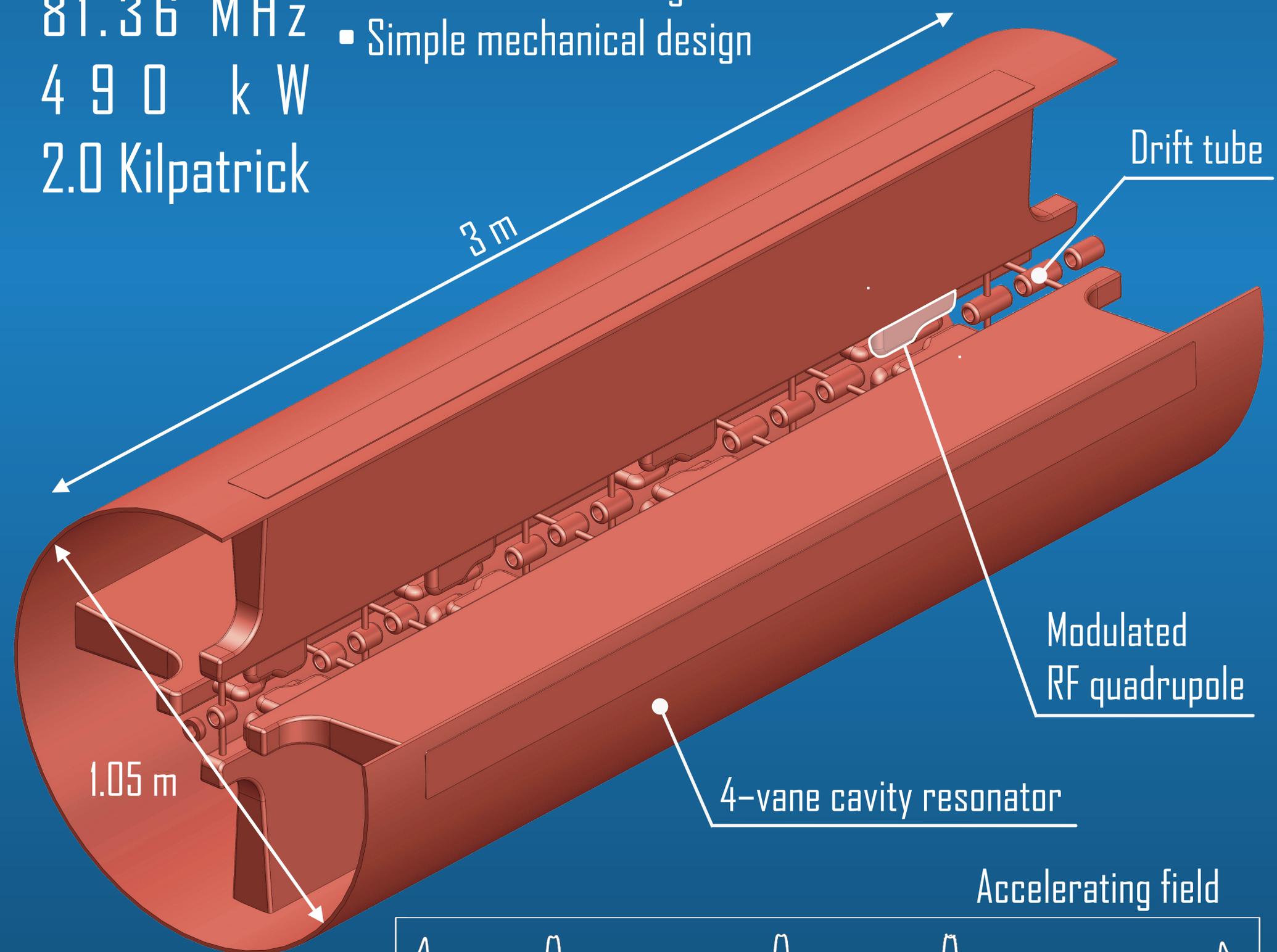


# SPATIALLY PERIODIC RF QUADRUPOLE LINAC

Alexander Plastun, Andrei Kolomiets  
ITEP, Moscow, Russia

10 NS 1/3  
30-50 mA  
4.7-12.2 MeV  
2.5 MeV/m  
81.36 MHz  
490 kW  
2.0 Kilpatrick

- Flexible focusing lattice FODO-RFQ (focusing period  $S = 5\beta\lambda$ )
- High accelerating efficiency because of modulated quadrupoles and drift tubes
- Dipole modes are totally suppressed by inter-vane coupling with drift tubes
- Low RMS emittance growth  $< 25\%$
- Simple mechanical design



Accelerating field

