

**Application of LANA Code for Design of Ion Linac** \*,  
D.V. GORELOV, P.N. OSTROUMOV, INR (Institute  
for Nuclear Research), Moscow - The LANA (Linear  
Accelerators Numerical Analysis) computer code has  
been developed in the INR in 1991-1995. This code is  
designated for 3-dimensional beam dynamics  
simulation including space charge effects in DTL,  
DAW, SCS, IH and similar linear accelerating  
structures as well as to design an accelerator containing  
cavities of these types of structures. The accelerator  
design is performed in the two- or three-dimensional  
imported "realistic" electromagnetic field distribution  
along each accelerating cell. The fundamental concept  
of the LANA code from the very beginning of its  
development was to provide the fullest possibly  
graphical representation of the beam during the  
simulation process. It opens an opportunity for  
understanding of the most complicated non-linear beam  
dynamics' problems.

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