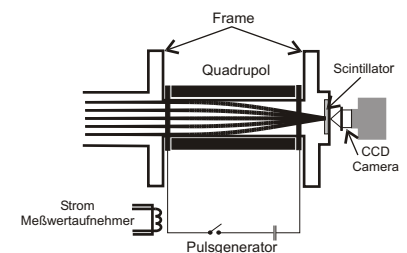


Diploma/Ph. D. Thesis in Experimental Physics Pulsed Highvoltage-Quadrupoles

With the help of pulsed high-voltage-quadrupoles developed by the II. Physikalisches Institut, it is possible to generate magnetic field gradients of 1000 T/m and more, corresponding a value about a 100 times large than those generated by conventional lenses. Because of the high focusing forces the lenses are well suited for the construction of focusing systems for energetic heavy-ion beams, which can be delivered by the accelerator facility at GSI in Darmstadt (Germany) delivers.

Work Areas During the Thesis:

- Ion-optical design of focusing systems
- Mechanical and electrical construction of Quadrupole doublets
- Measurement of the field quality
- Experimental work at GSI (Germany)



Things You Will Learn During This Work:

- Ion-optical basics + application programs
- Electro technics/electronics (especially pulsed high voltage)
- Construction of mechanical setups
- Experiments at GSI (Germany)



Requirements:

- Vordiplom or Master in Physics
- Joy in doing experiments



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