Messprotokoll - 13 Magnetfeld von Spulen

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Induktion

In [ ]:
```
IntegEichen=[[50,[78,83,83]],[100,[160,162,164]],[150,[243,242,240]],[200,[321,323,323]],[250,[405,404,401]],\
       [300,[481,483,480]],[350,[560,563,562]],[400,[640,642,642]],[450,[720,721,721]],[500,[802,800,802]]]#[ms,Ausg d In

IndSpule=[[0,54],[2,79],[4,118],[6,161],[8,196],[10,225],[12,240],[14,252],[16,263],[18,267],[20,267],[22,271],[24,273],\
          [26,271],[28,272],[30,270],[32,271],[34,268],[36,266],[38,262]]#Entf. vom Rand,  Ausg. Integ

#Sigma Entfernungen: \pm 1mm
#Systematischer Fehler der Mitte der Spule von ca. 0.5cm möglich
#Sigma Integrator 2
#Sigma Hallsonde \pm 0.1 Gauss
#Helmholzspule Durchmesser 10cm
```

Hall-Sonde

In [ ]:
```
LangDaten=[825,0.5,12.95,44.9]#Windungszahl,Drahtdurchmesser [mm],Durchmesser[cm],Länge[cm]
DickDaten=[499,0.5,20.0,27.0]
HelmDaten=[577,0.5,10,5]#Windungszahl einzeln,Drahtdurchmesser?,Länge zwischen Spulen (Spulenlänge 1.5cm)

HallLang=[[0,13.5],[1,13.4],[2,13.4],[3,13.5],[4,13.3],[5,13.3],[6,13.3],[7,13.2],[8,13.2],[9,13.1],[10,13.0],[11,12.9],[
7],\
      [13,12.5],[14,12.3],[15,11.9],[16,11.5],[17,11.0],[18,10.4],[19,9.6],[20,8.7],[21,7.7],[22,6.7],[23,5.6],[24,4.9],\
      [25,4.1],[26,3.6],[27,3.1],[28,2.7],[29,2.4],[30,2.2],[31,2.0],[32,1.7],[33,1.7],[34,1.5],[35,1.5],[36,1.4],[37,1.4
      [38,1.3],[39,1.2],[40,1.2],[41,1.1],[42,1.1],[43,1.1],[44,1.1],[45,0.9],[46,1.0],[47,1.0],[48,1.0],[49,0.9],[50,0.9
HallDick=[[0,11.5],[1,11.3],[2,11.2],[3,11.1],[4,10.9],[5,10.6],[6,10.3],[7,9.9],[8,9.5],[9,9.0],[10,8.4],[11,7.7],[12,7.
      [13,6.6],[14,6.0],[15,5.5],[16,4.9],[17,4.45],[18,3.9],[19,3.6],[20,3.2],[21,2.9],[22,2.7],[23,2.45],[24,2.25],\
      [25,2.1],[26,2.0],[27,1.8],[28,1.7],[29,1.65],[30,1.6],[31,1.5],[32,1.4],[33,1.4],[34,1.35],[35,1.3],[36,1.2]]

HallHelm=[[-10,8.45],[-9,10.2],[-8,12.5],[-7,15.5],[-6,18.1],[-5,20.35],[-4,21.65],[-3,22.4],[-2,22.4],[-1,22.4],[0,22.35
      [1,21.8],[2,20.55],[3,18.3],[4,15.7],[5,13.0],[6,10.5],[7,8.4],[8,6.6],[9,5.4],[10,4.5],[11,3.8],[12,3.2],\
      [13,2.7],[14,2.4],[15,2.1],[16,1.9],[17,1.6],[18,1.5],[19,1.4],[20,1.2],[21,1.1],[22,1.1],[23,1.0]]
```