

Probing magnetic fields in solids using muon spin rotation

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Outline

Section 1

Section 2

Subsection name

blocktest

Beweise, Definitionen, Lemmata, Bemerkung

Zweispaltig

Bilder und Quellen

General principle of μ SR

Test Frametitle

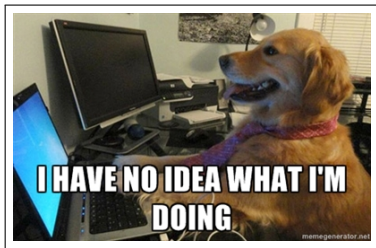
Test yo

- ▶ Test
- ▶ Test 2
- ▶ Test 3

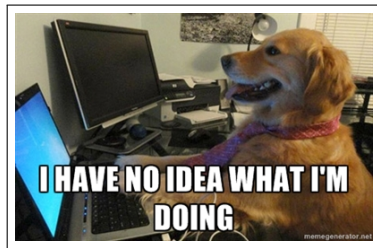
G_3' : Die Menge \mathbb{R} ist ausdrückbar.

WTF

Das hier: Description: Aufzählung ohne Punkte



RS-Flipflop



getaktetes RS-Flipflop

Blöcke

Einfacher Blocktitel

Einfacher Blocktext

Beispielblocktitel

Beispielblocktext

Warnungsblocktitel

Warnungsblocktext

Beweise etc

Proof.

Beweis



Lemma (XY – Ein Dual zu YX)

Lemma

Theorem (T – Nach Tarski)

Theorem

Bemerkung

Bemerkung: zuerst

`\newtheorem*{bem}{Bemerkung}`

in Präambel setzen!

Overlays

- ▶ Einleitung
- ▶ daher
- ▶ aber Achtung!
- ▶ also so und so
- ▶ Schlussfolgerung

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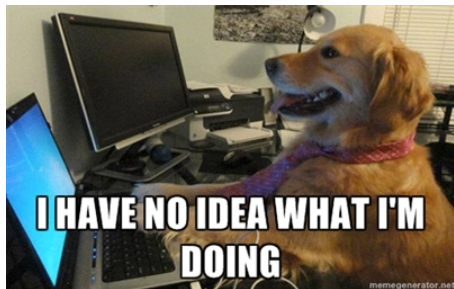
Overlays

- ▶ Einleitung
- ▶ daher
- ▶ **aber Achtung!**
- ▶ also so und so
- ▶ Schlussfolgerung

Overlays

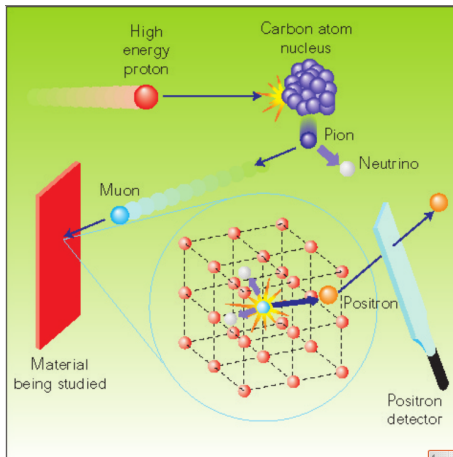
- ▶ Einleitung
- ▶ daher
- ▶ aber Achtung!
- ▶ also so und so
- ▶ Schlussfolgerung

Zweispaltige Sachen



1. Start
2. Stopp

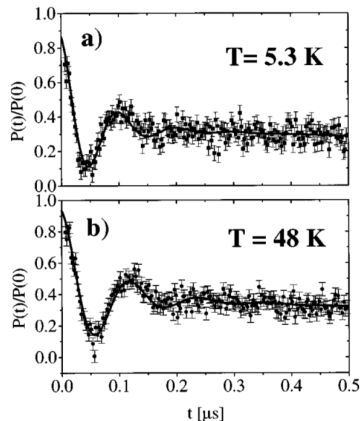
General principle of μ SR



Dalmas de Réotier, Pierre (2010): *Introduction to muon spin rotation and relaxation (μ SR)* [Online]. Available: http://inac.cea.fr/Pisp/pierre.dalmas-de-reotier/introduction_muSR.pdf

Coexistence of ferromagnetism and superconductivity in $\text{RuSr}_2\text{GdCu}_2\text{O}_8$

- ▶ ferromagnetic phase is homogenous on a microscopic scale
- ▶ it accounts for most of the sample volume
- ▶ magnetic order is not significantly modified at the onset of superconductivity



C. Bernhard, J. L. Tallon, Ch. Niedermayer, Th. Blasius, A. Golnik, E. Brücher, R. K. Kremer, D. R. Noakes, C. E. Stronach, and E. J. Ansaldo, Phys. Rev. B 59, 14099 (1999)

Time-resolved normalised muon-spin polarisation $P(t)/P(t=0)$ at temperatures $T = 5.3 \text{ K} < T_{c,sc}$ and at $T_{c,sc} < T = 28 \text{ K} < T_{c,m}$. The large oscillatory component gives clear evidence for the presence of a magnetically ordered state.

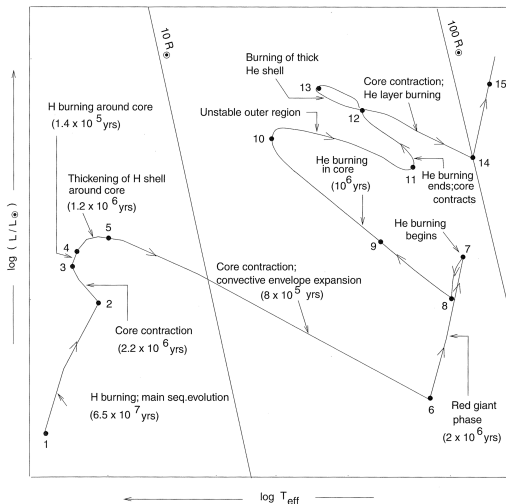
5 - 6

He core is homogenous (convective mixing). It will be nearly isothermal.

More and more *He* is produced by shell burning, the core becomes more massive

At some point, core cannot support envelope mass anymore:

⇒ core contracts, envelope expands



T. Padmanabhan, "Theoretical Astrophysics Volume II: Stars and Stellar Systems". New York: Cambridge University Press, 2001.