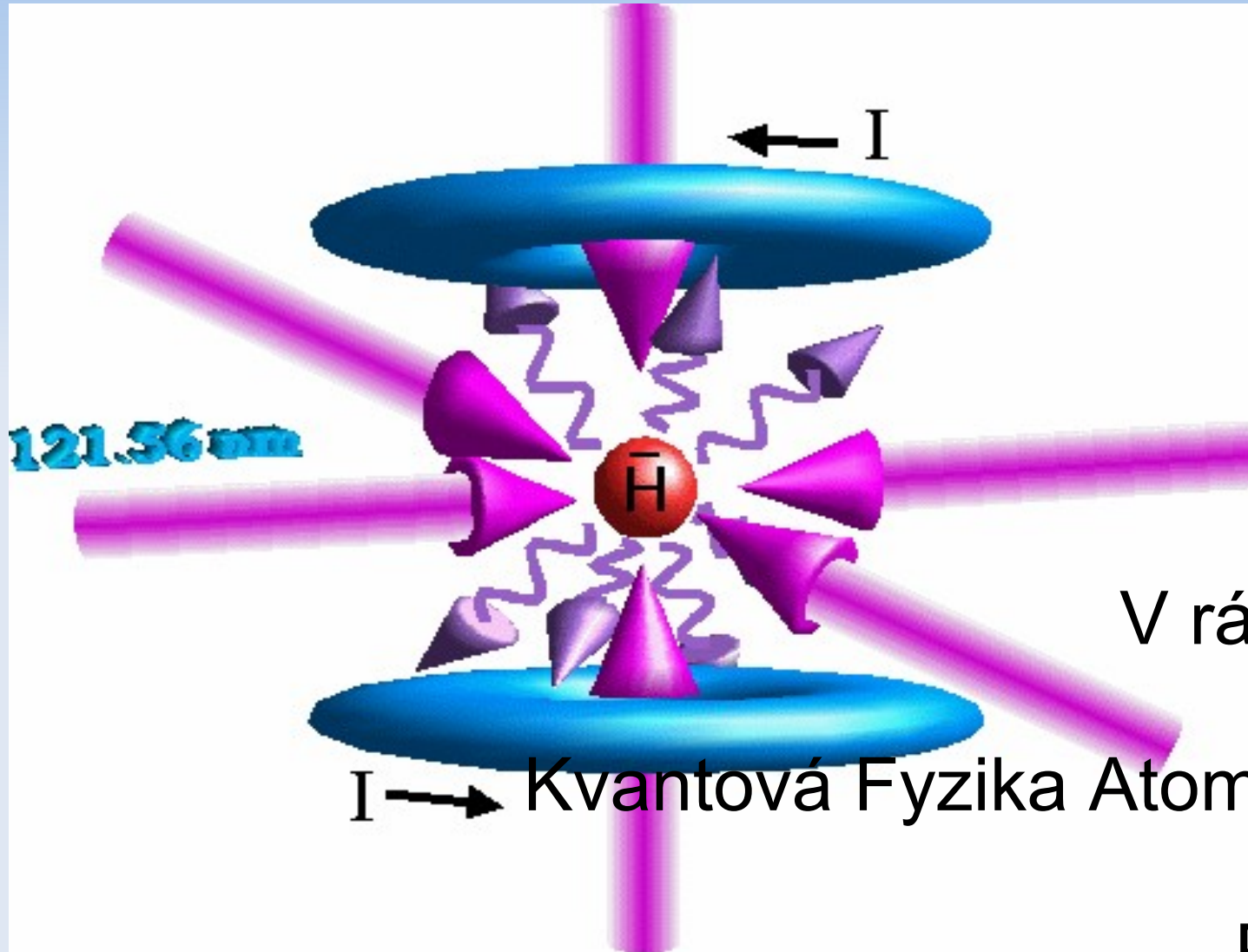


# Laserové chladenie



V rámci predmetu:  
F4110

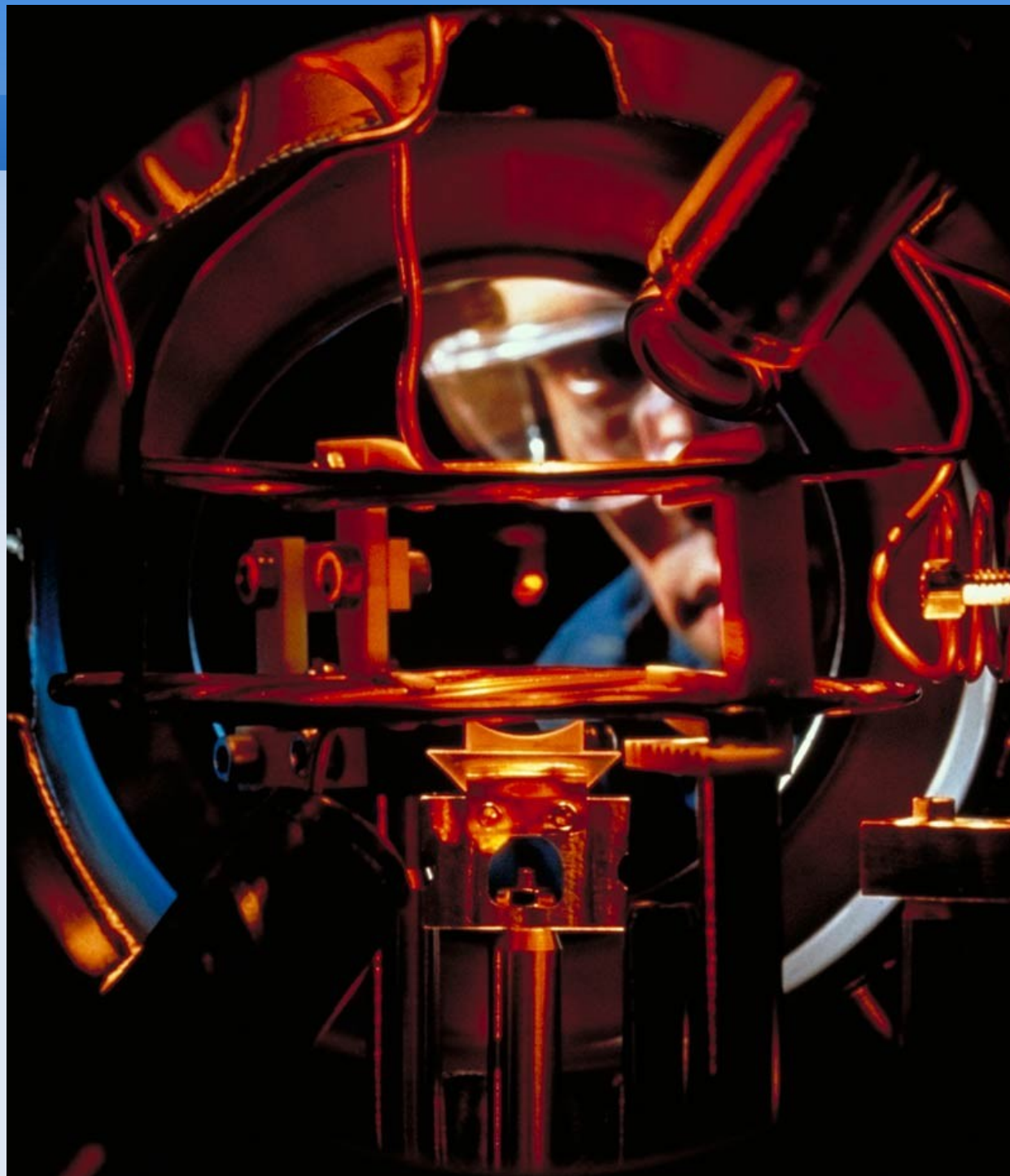
Kvantová Fyzika Atomárných soustav

26.5.2010

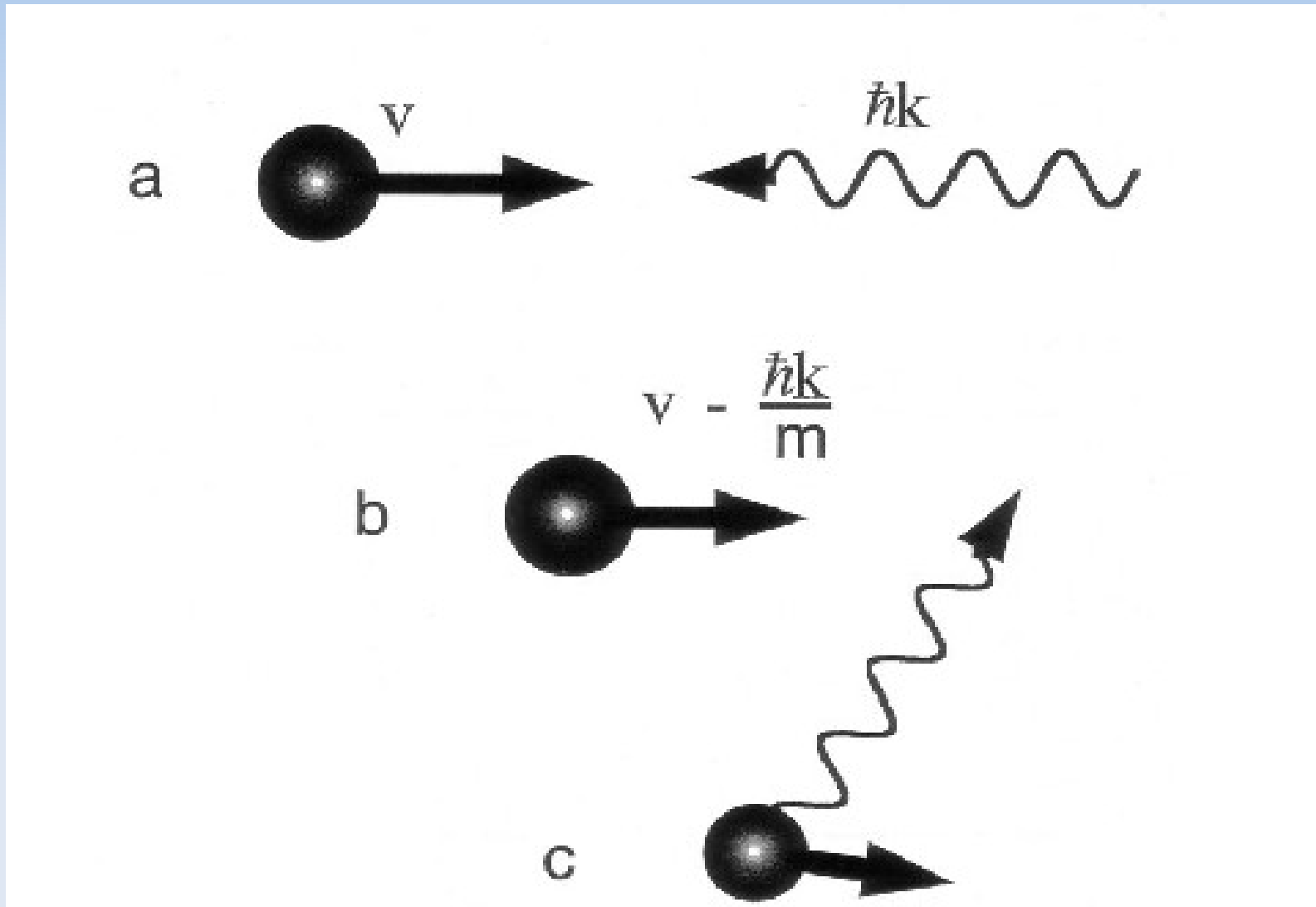
Pavel Kušnierik

# Trochu histórie

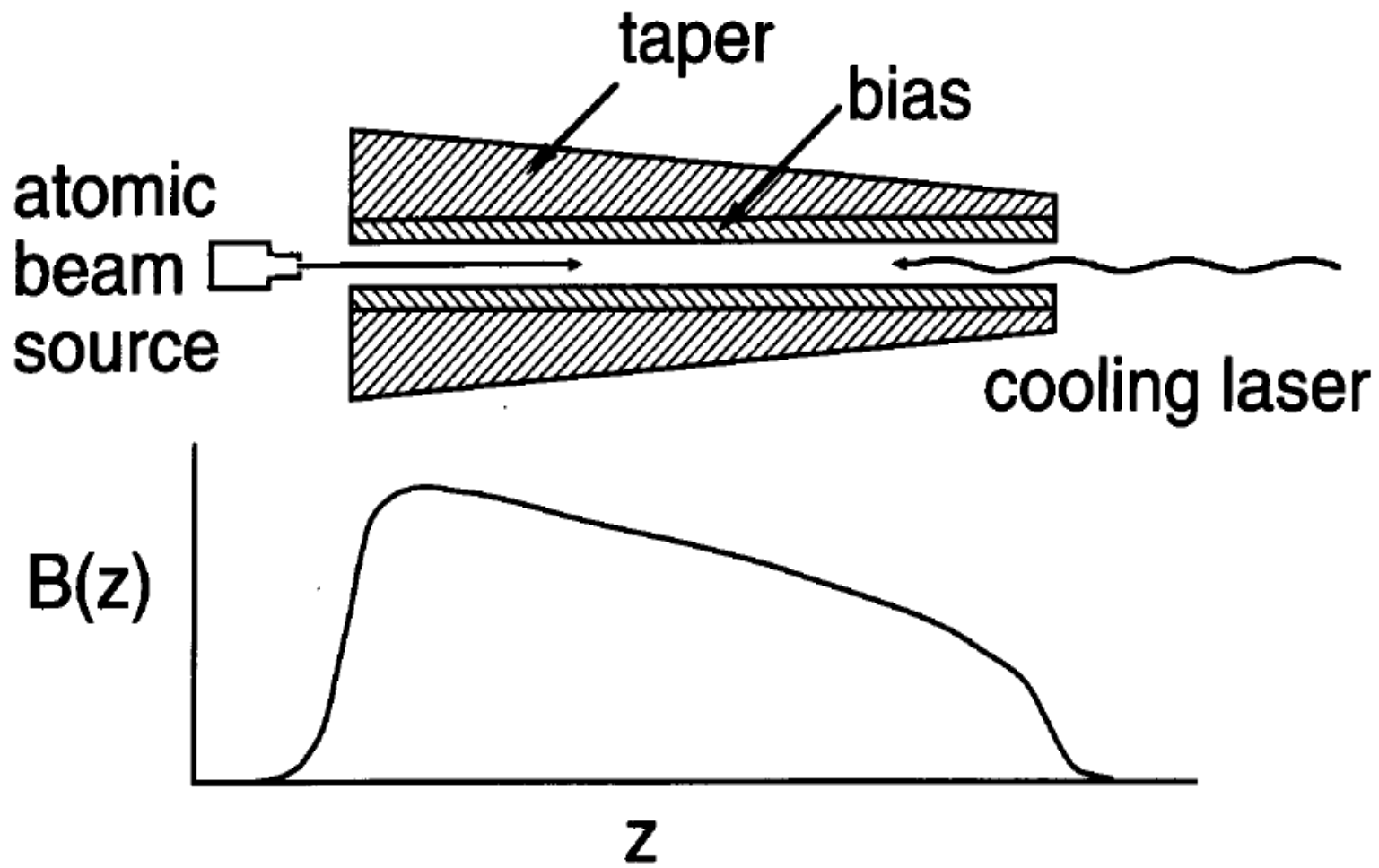
- 1960 Theodore H. Maiman (USA) prvý funkčný laser
- 1978 ióny  $\text{Mg}^{2+}$  schladené pomocou laseru na 40 K
- 1982 prvá práca o chladení neutrálnych atómov
- 1985 atómy Na schladené na 240 mK (Steven Chu)
- 1988 dosiahnutie teploty 43  $\mu\text{K}$
- 1995 Boseho – Einsteinov kondenzát
- 1997 nobelova cena (Steven Chu, Claude Cohen-Tannoudji, William D. Phillips)
- 2001 nobelova cena za BE kondenzát



# Dopplerovo chladenie

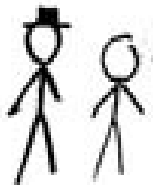


# Zeemanovo spomalenie

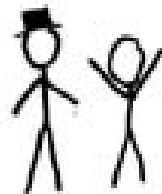


# Ďakujem za pozornosť

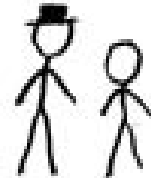
Schrödinger's  
Comic



The last panel of this  
comic is both funny  
and not funny at the  
same time.



Until you read it,  
there's no way  
to tell which it  
will end up being.



Shit.

