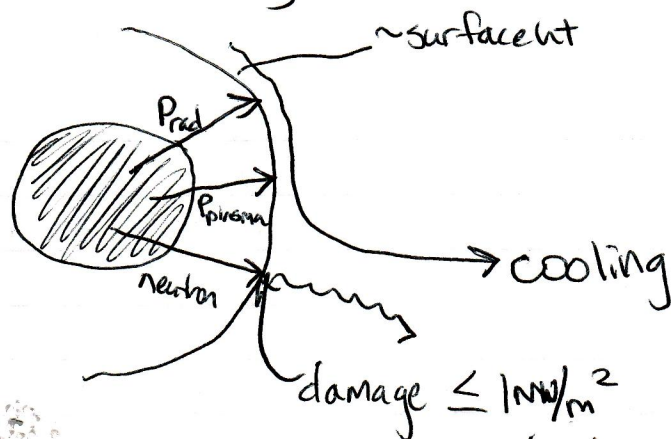


4/6

- Office hour disc Wed 4PM  
~ Exam review and HW review
- Open book in-class exam Tues 4/13
- HW #8 due at beginning of exam - worth 50%
- Take-home final exam Apr 27, due May 6

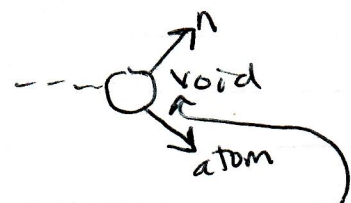
## HW #8 (continued)

6) Wall loading: Plasma and radiation heating present wall loading challenge. Keep  $<$  a few  $\text{MW}/\text{m}^2$ . Neutron material damage sets limit on neutron "power" loading (actually power associated with neutrons passing through wall) of  $\leq 1 \text{ MW}^*/\text{m}^2$ . Assume ITER was 50/50 DT and operates at the  $nT - kT$  intercept you found in 5) (or if not found, used main  $nT - kT$  on energy balance curve of 3)) Calculate the corresponding "heating and neutron" wall loading in  $\text{MW}/\text{m}^2$ . Do they fall in allowed limits. If not, suggest how to change the design to adjust the Wall loading.



↳ not amount deposited, amount it takes to go through

neutron damage  
① displacement voids



$n, d$  reactions  $\rightarrow$   $^4\text{He}$  causes swelling