

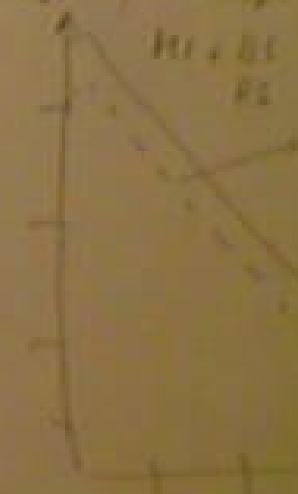


$$f(x) = \dots$$

$$\langle x \rangle = \dots$$

$$\frac{dU}{dx} = \dots$$

$$H_1 = H_2$$



$$\frac{d^2U}{dx^2} = \dots$$

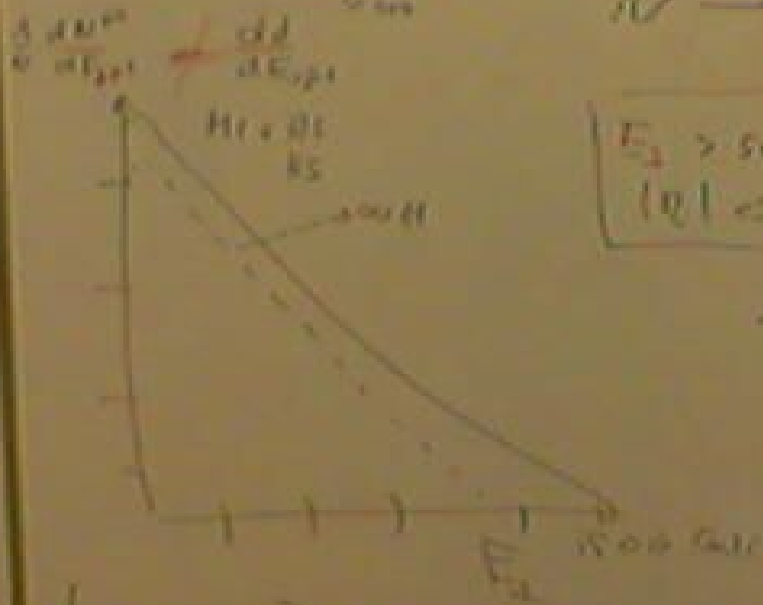
$$\frac{1}{2} \frac{d\langle \sigma \rangle}{dt} = \frac{1}{2} \frac{d}{dt} \left( \frac{\int \sigma \rho}{\int \rho} \right) \sim \frac{1}{2} \frac{d\langle \sigma \rangle}{dt}$$

$$\langle \sigma \rangle = \frac{\int \sigma \rho}{\int \rho}$$

$$N \rightarrow \frac{dN}{dt}$$

$$E_1 > 50 \text{ GeV}$$

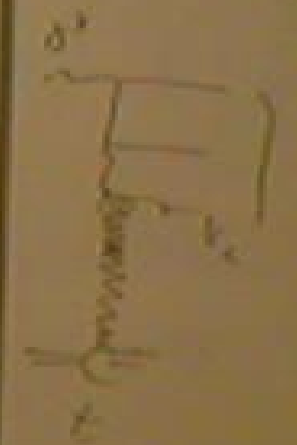
$$|Q| < 5$$



$$\hat{t} \sim -p_{\perp}^2$$

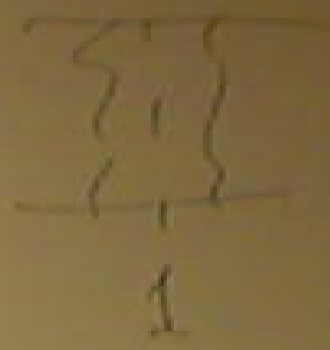


$\sigma_{tot}$



$\sigma_{tot} \sim \ln^2 s$

$$\sim \frac{1}{2} P_{\text{sam}}$$



$$\sigma_{\text{tot}} \rightarrow (1 + 0,05 - 0,2 + 0,1)$$

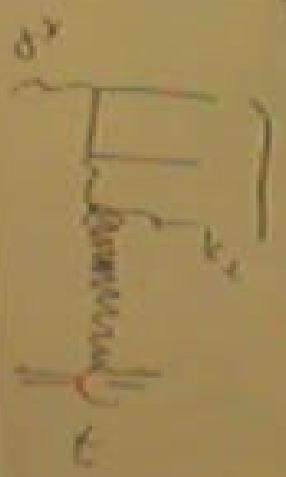
$$\uparrow 0,95 \quad \underline{\sum_{i=1}^n C_i}$$

$$0,9$$

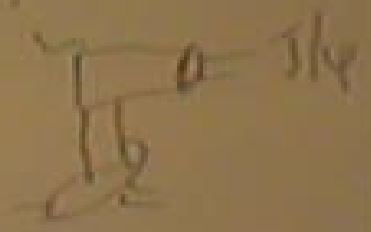
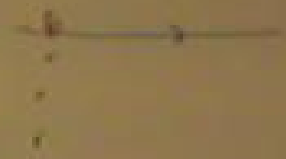
$$P_1$$

$$\sim \frac{1}{2} P_1$$

$$\rightarrow \sim P_1^2$$



$$P(x) = \left(\frac{x}{x_0}\right)^{\alpha(x)}$$



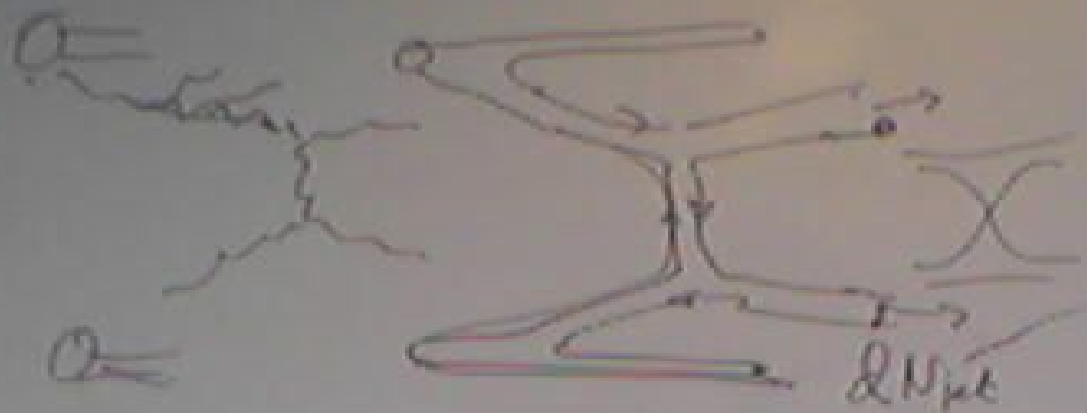
IV

2  
1  
10%

(0,1)  
 $\frac{1}{2} C_4$

$\frac{1}{2} C_4$





Q<sub>net</sub>

N<sub>net</sub>  
inflow lift



$$S_{out} = \frac{MC}{MC}$$

$$S_{in} = \frac{MC}{MC}$$

→ 1.3 -

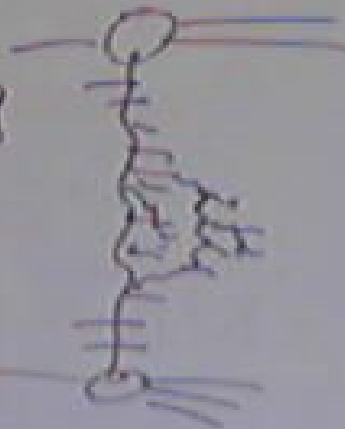
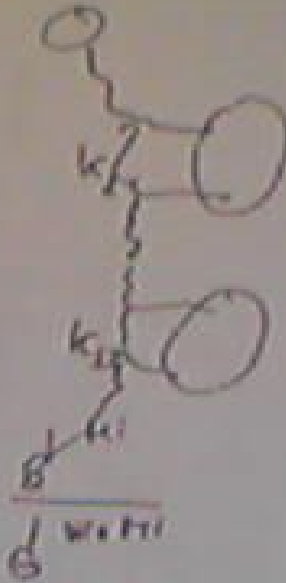
90%

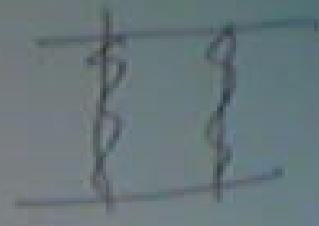
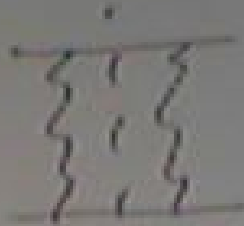
$$\Delta_{\text{bad}} = \frac{MC_{\text{bad}}}{MC_{\text{perfect}}}$$

$$\Delta_{\text{uc}} = \frac{MC_{\text{HI}}}{MC_{\text{No HI}}}$$

1.3 - 1.9

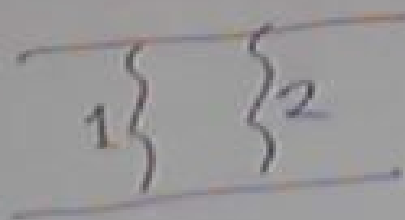
90%





diff.  
a el.  
1

-4



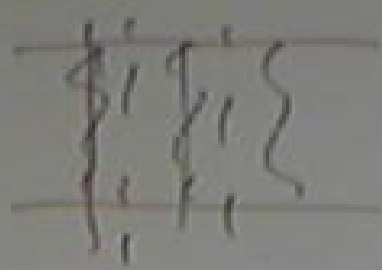
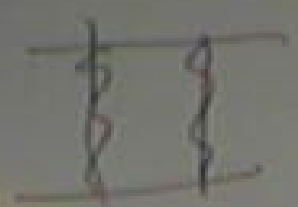
|

|

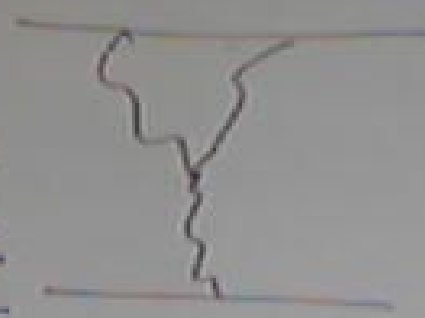
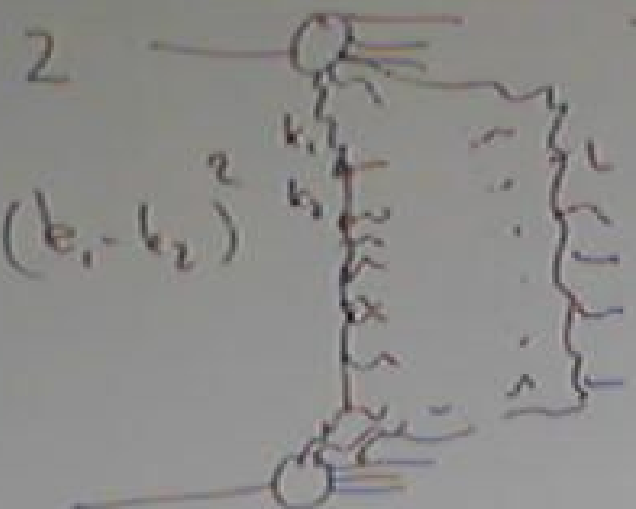
|

2

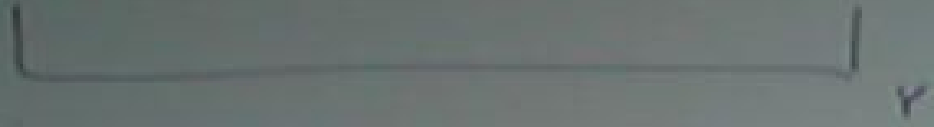
$(b_1 - b_2)^2$



-4

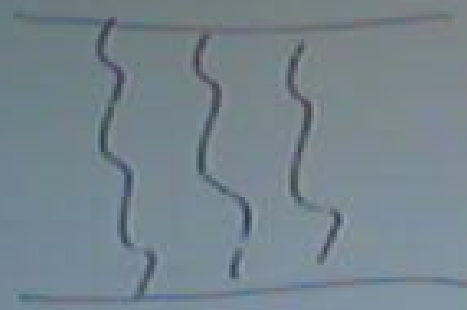






$$\frac{dn}{dy} = e^{cy}$$

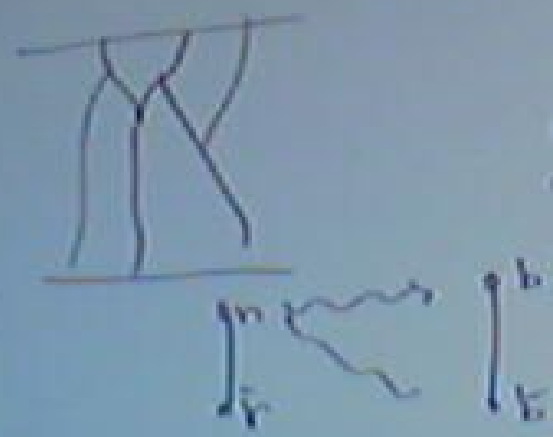
$$\frac{dn}{dy} = c \log s = Y$$



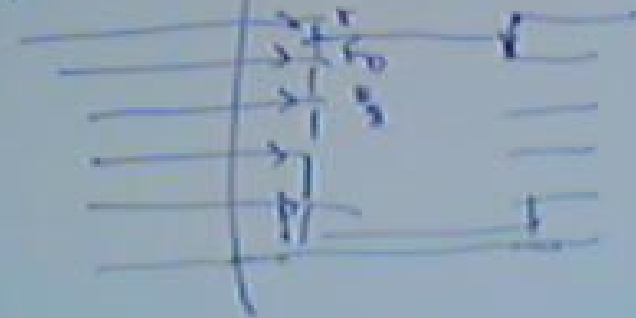
$$S = \exp(-\frac{e^{cy}}{c})$$

$$n = e^{cy}$$

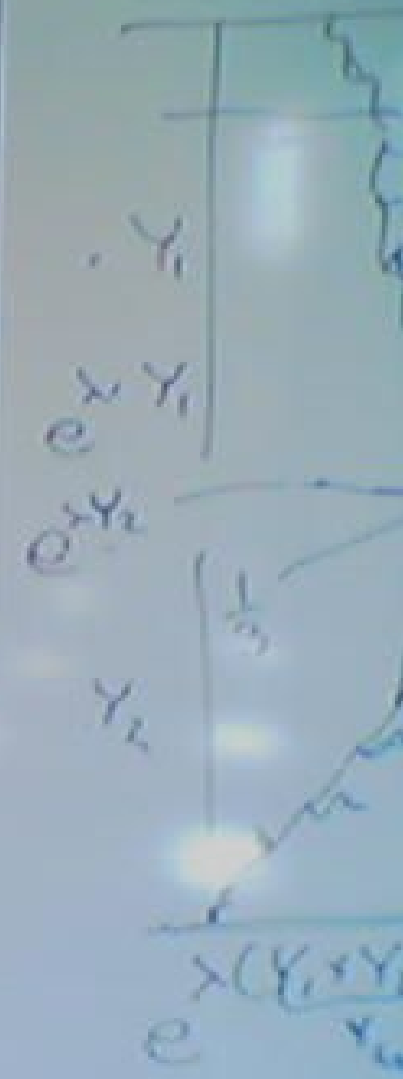
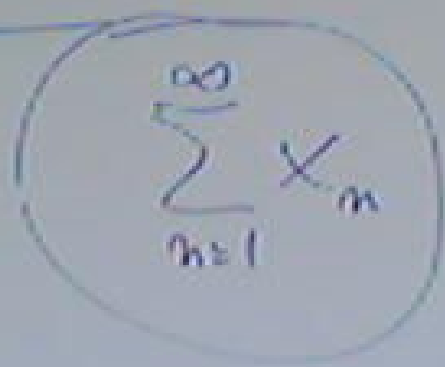
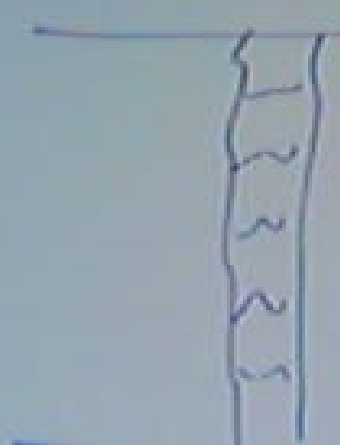
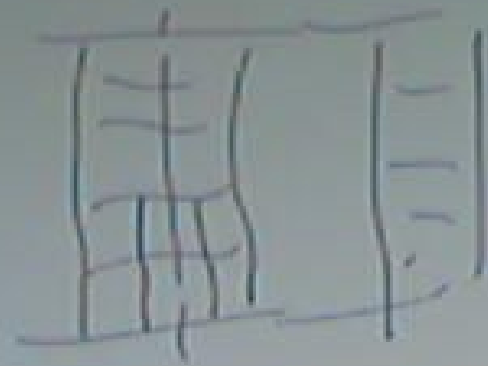
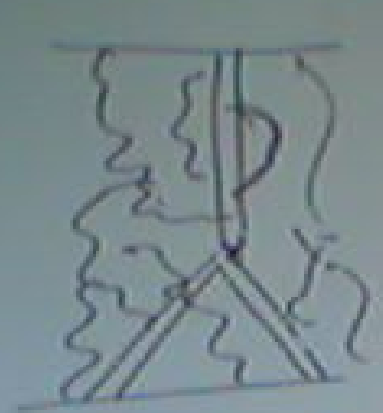
$$n_1 \rightarrow n = e^{cy} n_1$$

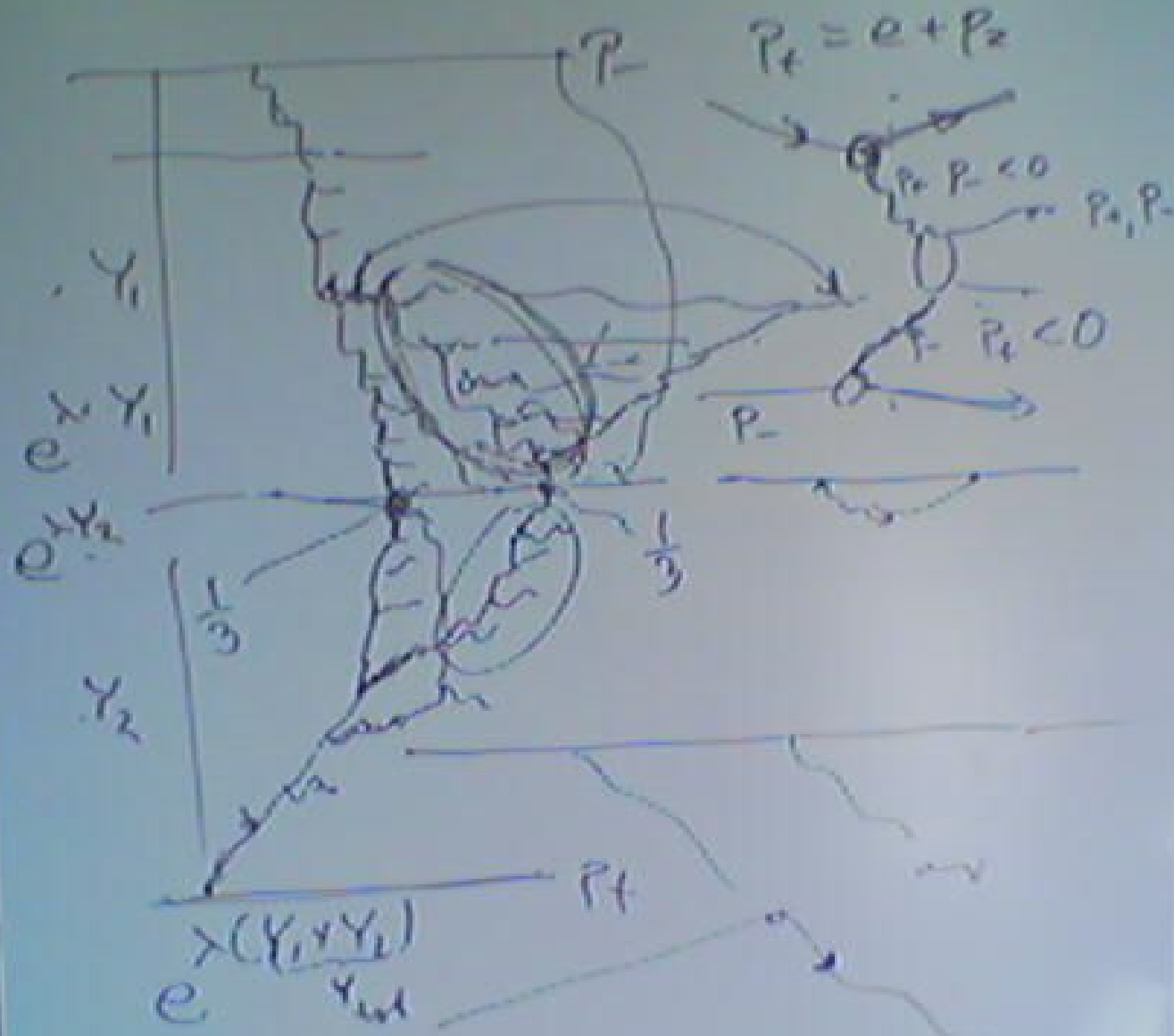


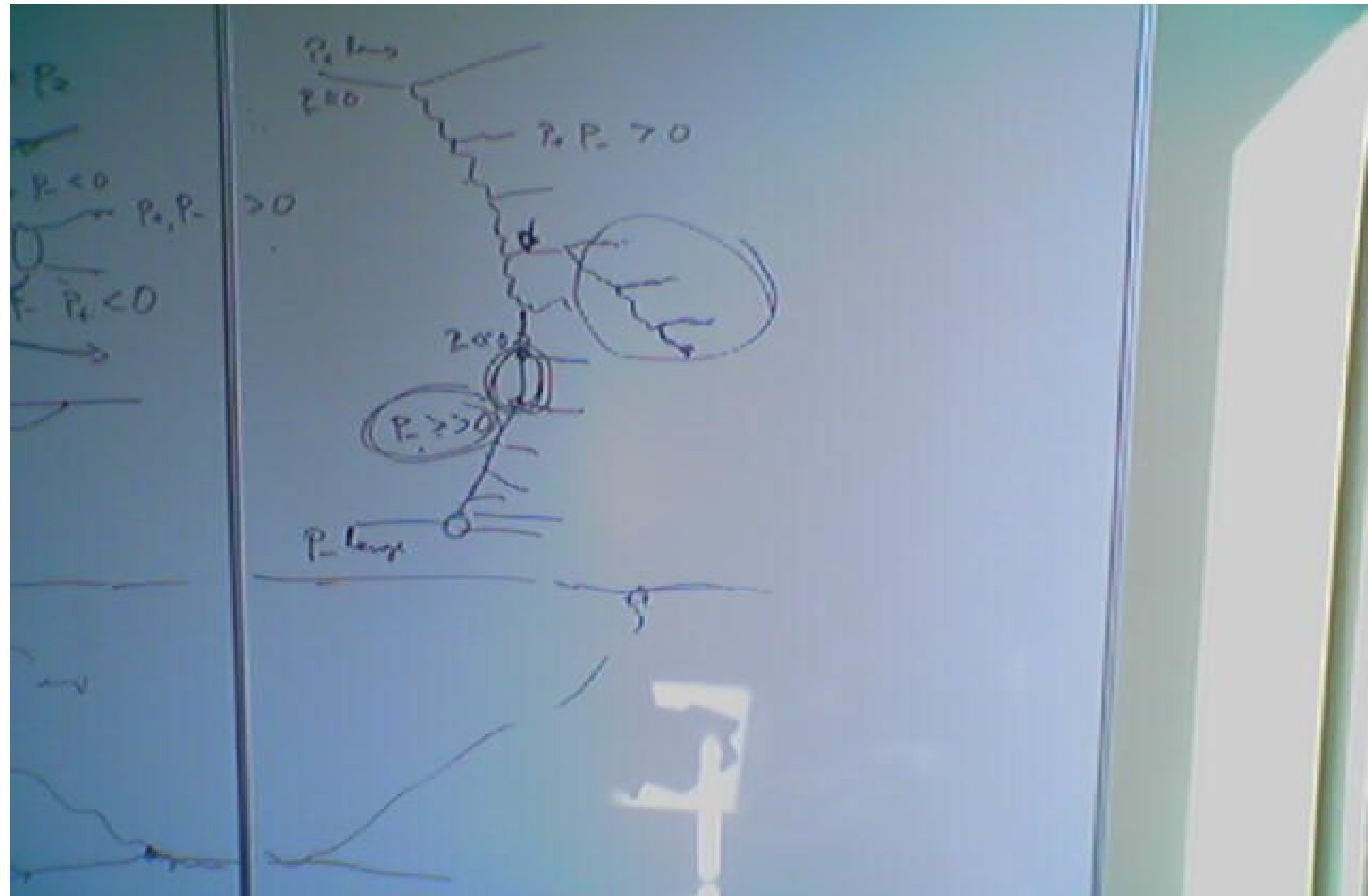
$$\frac{dn}{dy} = Y \Delta \bar{h}_1$$



4114



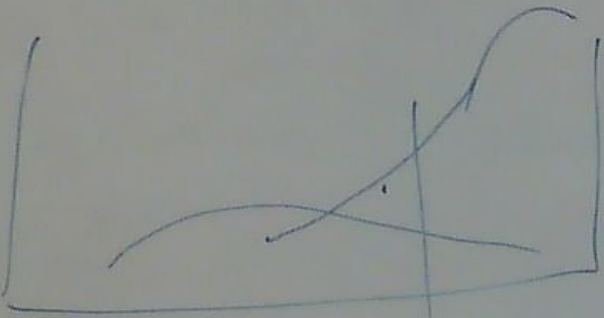
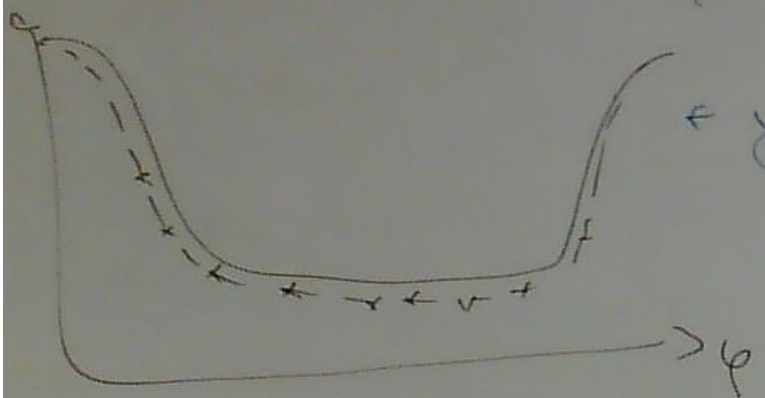
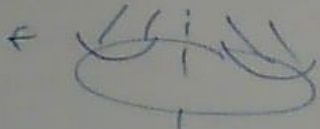
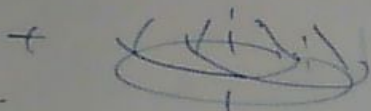
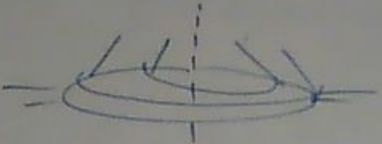
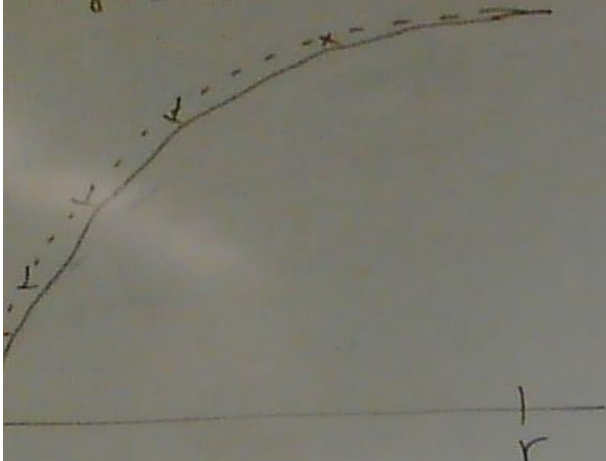




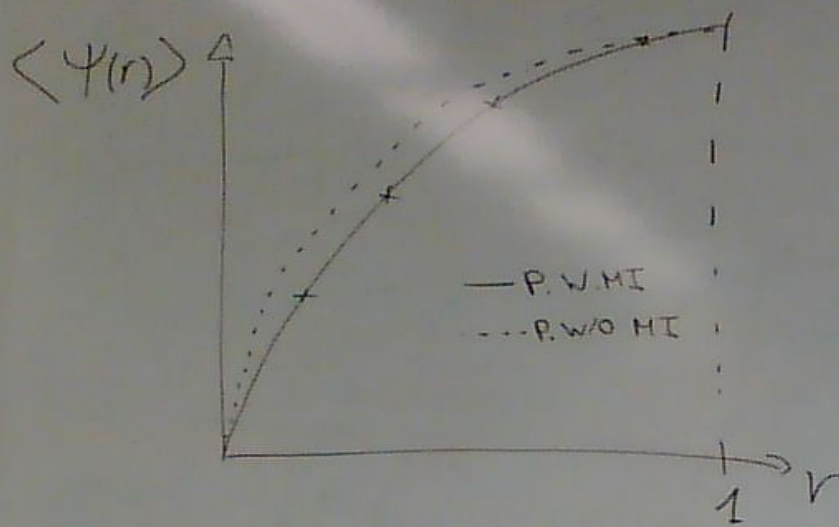
Charm  
 $x_0 < 0.75$

$$\langle \psi(r) \rangle = \frac{\sum_i \psi_i}{\sum_i \psi_i}$$

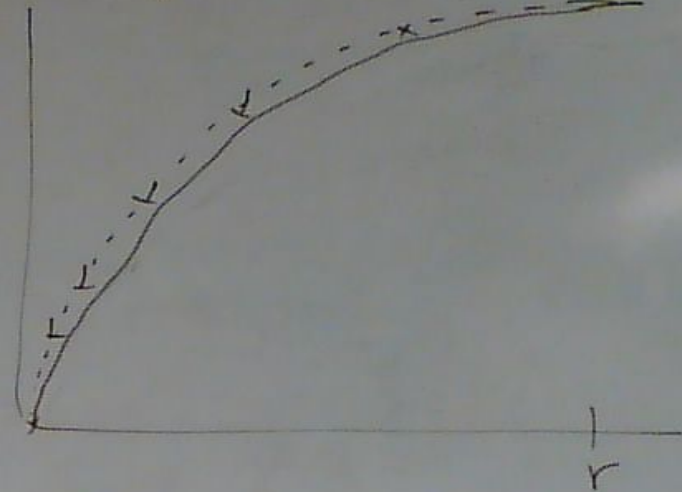
$$P_t^{2d} > 7(6) \text{ GeV}$$



All incl.  
 $X_r < 0.75$



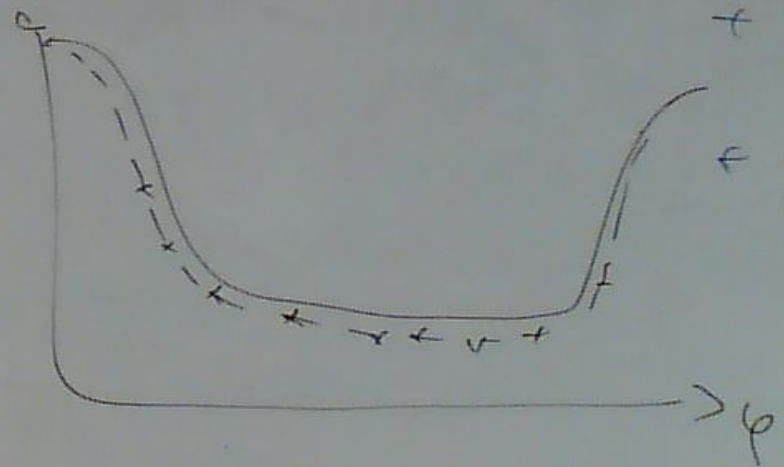
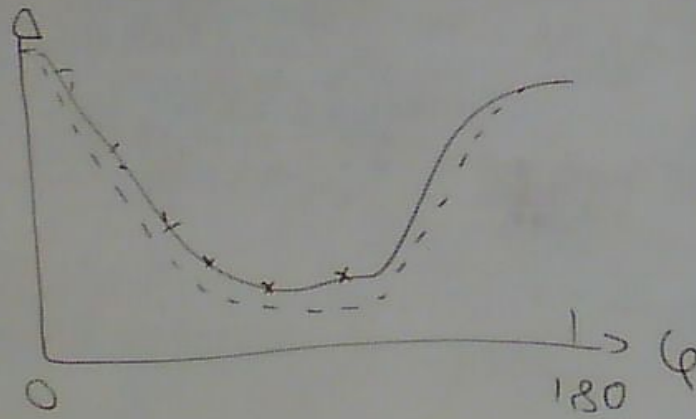
Chann  
 $X_d < 0.75$



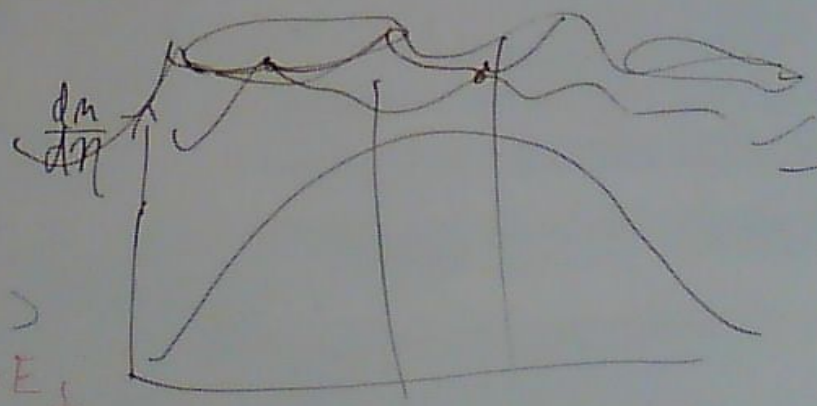
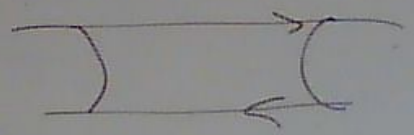
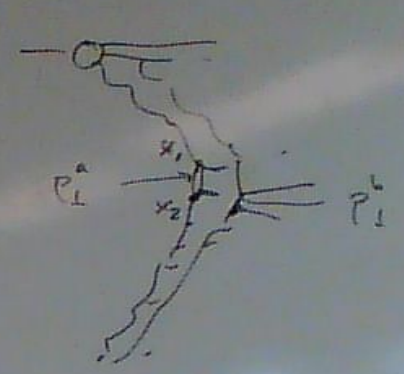
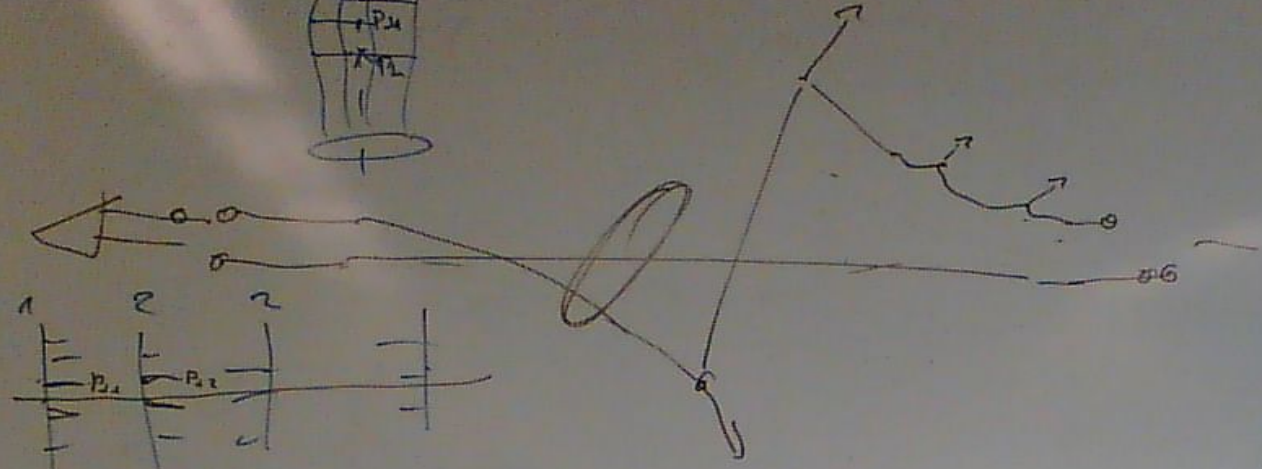
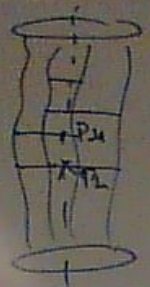
$\langle \psi(r) \rangle$

$P_t^{hd} >$

$\langle M \rangle$



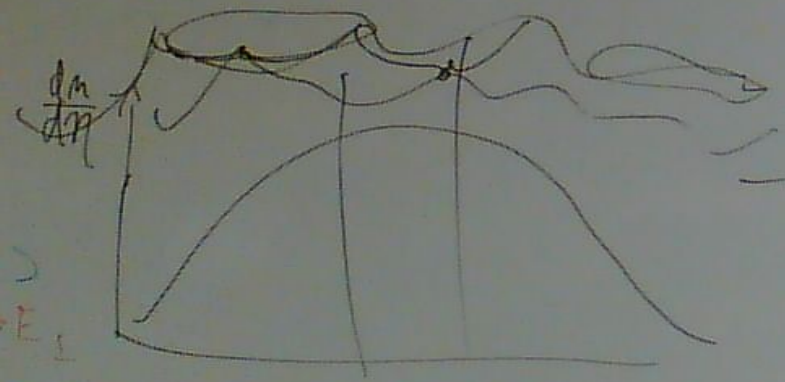
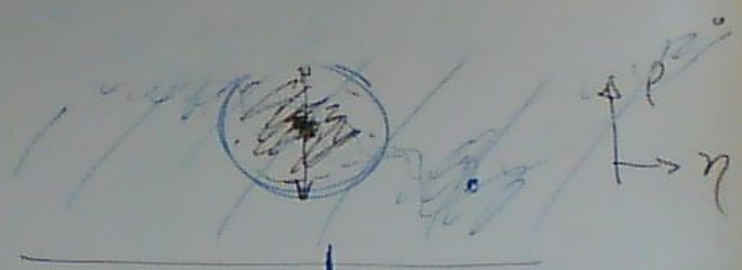
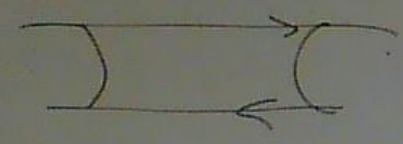
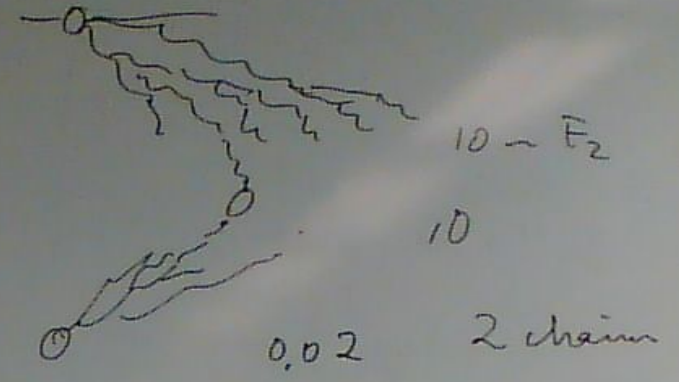
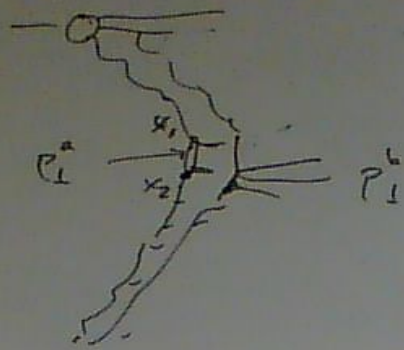
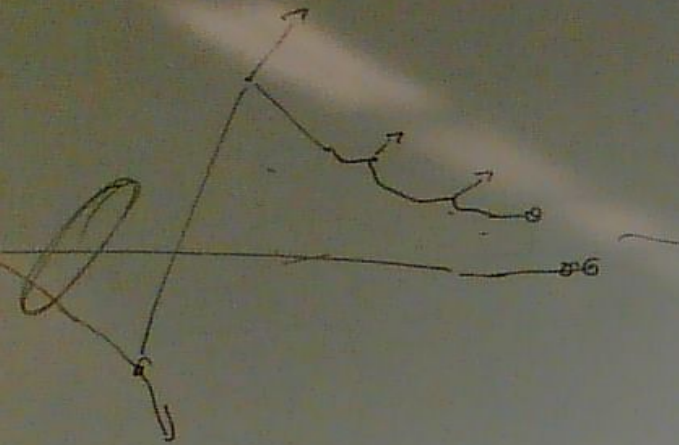
$+ \langle M \rangle$   
 $\leftarrow \langle M \rangle$



$$\bar{F}(x_1, P_1^?) \cdot \bar{F}(x_2, P_1^?)$$

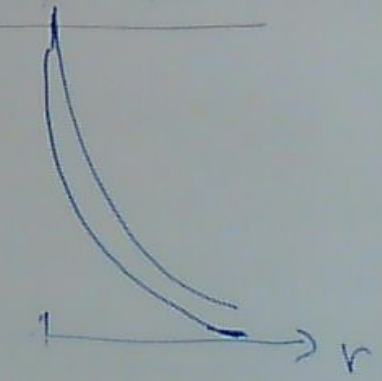
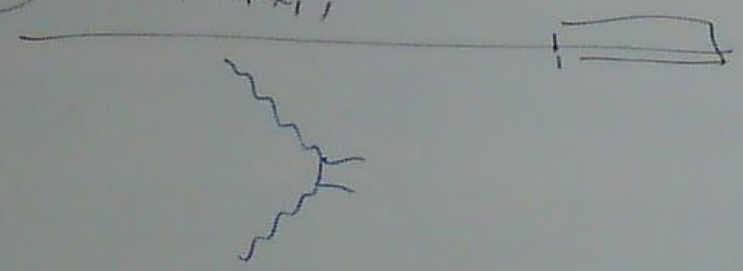
$$F\left(\frac{x_2}{1-x_1}, \dots\right)$$

$\rightarrow E_1$



$$F(x_1, P_1^r) \cdot F(x_2, P_1^l)$$

$$F\left(\frac{x_2}{1-x_1}, \dots\right)$$





3a

1.)

Correlation / interference

- is  $P_T$  ordering enough to logarithm interference?

2.)

AGK inclusive jet + section

- parton level
- hadron level
- normalization / total + section

$$d_{jet}^{inc} = \text{diffractive} + \text{interference} + \text{multiple exchange}$$

$$S_{u.c.} = \frac{d^{jet}}{d^{jet} |_{u.c.}}$$

$$1.3 - 1.9$$

$$E_{\perp} > 6 \text{ (GeV)}$$

1

3.)

fact proof

3b

4.)



5.)

color connection

- triple IP
- dipole formation
  - CASCADE

2.)

6.)

forward jets + MT