Diagram, schematic

Description automatically generated

V2 volume of the short circuit space

A piece of paper with writing on it

Description automatically generated with medium confidence

[10:43] Auerswald, Sven

V3 volume flow of the stagnating zone aka occupied zone in our case

Diagram, engineering drawing

Description automatically generated

[10:46] Auerswald, Sven

Transformation of the probability density function of an ideally mixed system f(t) into its Laplace transform f(s).

Diagram, engineering drawing

Description automatically generated

Calculating the moments of origin mü of a probability distribution based on its moments creating function f(s) and through its cumulants kappa.

Diagram

Description automatically generated

Laplace transform of the probability density function of system 23 or moments creating function of system 23.

Diagram, engineering drawing

Description automatically generated

[10:55] Auerswald, Sven

Laplace transform of the probability density function of system 123 or moments creating function of system 123. 123 = entire system

Diagram

Description automatically generated

Proof that the calculation based on the exhaust air residence time tau\_e2 and the indoor average air age <alpha>\_3 lead to similar results as the calculation based on V\_23, dotV23 and <alpha>\_3 for epsilon^DRK=epsilon^a,a\_23 absolut air change efficiency of system 23 (indoor only subsystem)

Diagram

Description automatically generated

Recirculation rate R based on short cut rate and relative ACE of subsystem 23.

[11:17] Auerswald, Sven

Federspiel 1999, eq. 16

[11:18] Auerswald, Sven

Carefull with Federspiel!!

Diagram, engineering drawing

Description automatically generated

Calculation of the effective fresh air volume flow dotV\_0