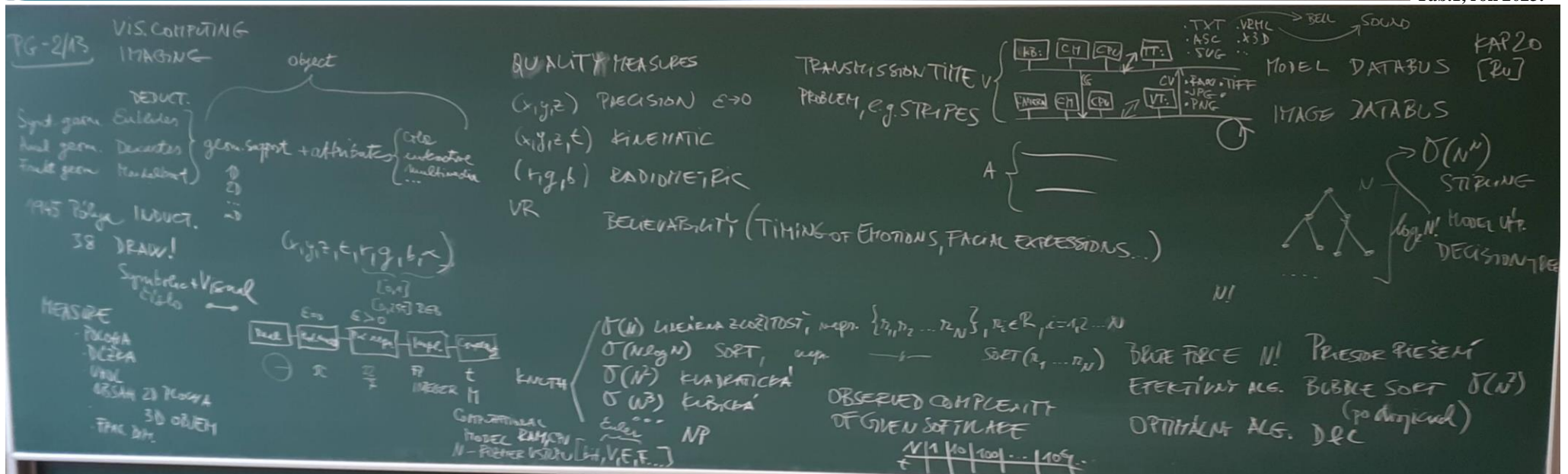


Tab.1, rok 2023.



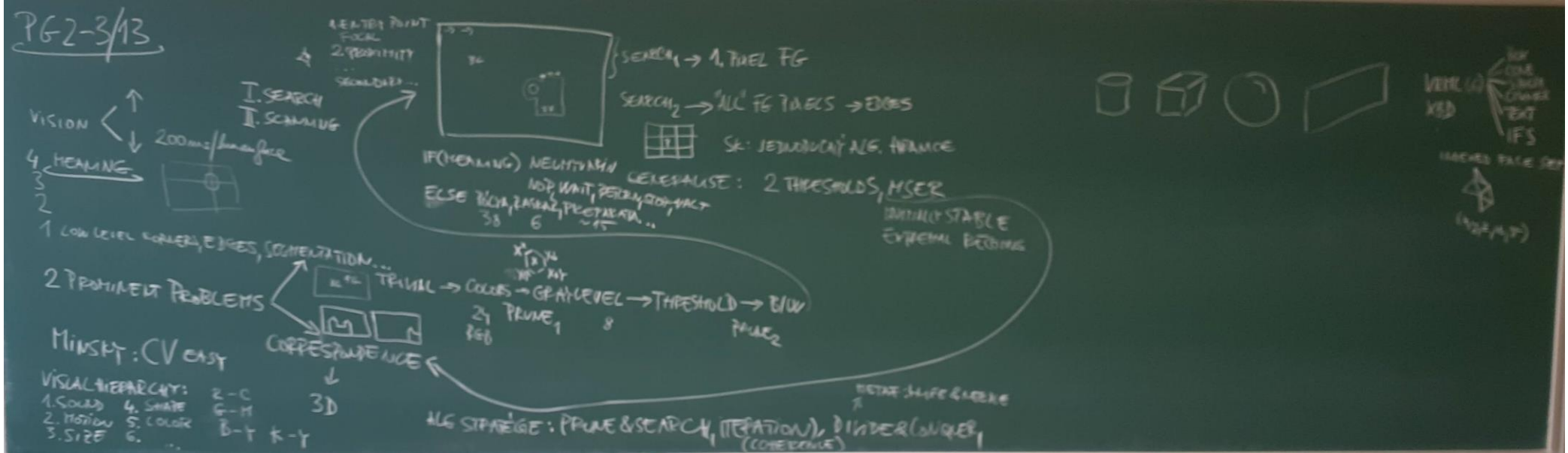
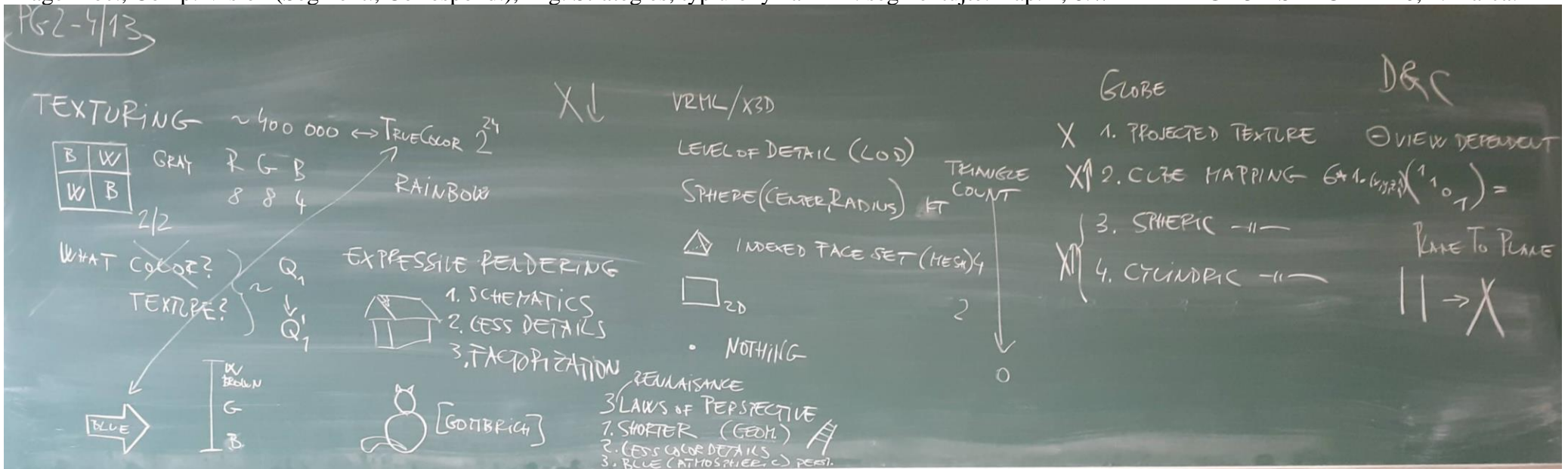


Image Proc., Comp. Vision (Segment., Correspond.), Alg. Strategies, typ úlohy na MID: segmentujte. Kap. 1, 8. // Tabuľa PG2-3-LS24 @ M-120, 4. marca.



Texturing, Level-of-details, Expressive Rendering, Laws of Perspective. Book: Szirmay-Kalos, Hughes et al.. // Tabuľa PG2-4-LS24 @ M-120, 11. marca.

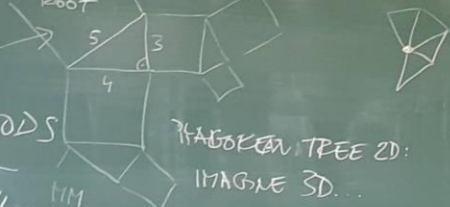
PG-2/5

RENDERING SPECTRUM

MBR - Model Based
IBR - Image Based

TRIANGLE WITH DATA (COLOR, NORMAL, TANGENT...)

TRIANGLE STRIPS / FANS



FRAGMENT TREE 2D:
IMAGE 3D...

STANDARD MODELING METHODS

SPECIAL

- PHYSICALLY-BASED // GRAPHICS SYSTEM >> GAME ENGINE
- MAPS: NYU TORCH (KEY, KOL, PRATOR)
- PERLIN NOISE
- FRACTALS, e.g. BOTANICALLY PERFECT TREES // SUCCESS STORY
- CELLULAR AUTOMATA
- GRAPHICAL SURFACE GEOMETRIES

TEXTURES

CONTINUOUS → CUBE MAPPING 6 / BEAMER

SHERIC → PARAMETRIC STEREOGRAPHIC

Rendering Spectrum, standard and special modeling, typ úlohy na MID: texturing. Kap. 15. // Tabuľka PG2-5-LS24 @ M-120, 18. marca.

PG2-6

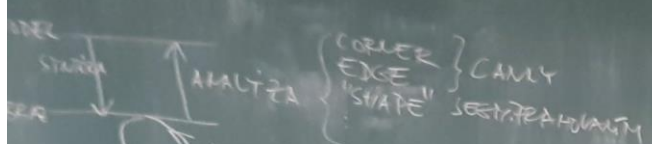
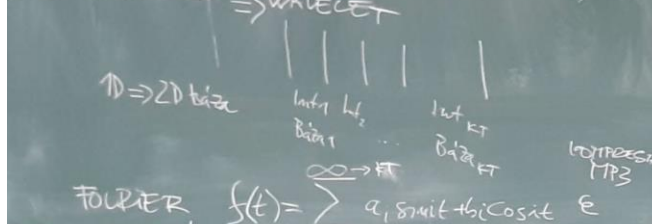


IMAGE PROCESSING

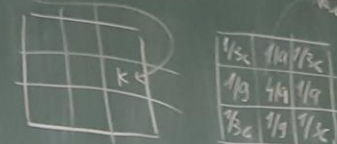
QUALITY, FOURIER, IS/VEC/TC/SC23

eg. DCT for JPG (JOINT PHOTOGRAPHER'S EXPERT GROUP)



FOURIER $f(t) = \sum a_n \sin t + b_n \cos t$

PROBLEM 1: ČYBA SELEKČIA



1/2c	1/4/1/2c	
1/3	1/4	1/9
1/3c	1/9	1/2c

$\sum a_{ij} = 1$

PROBLEM 2: SUM, mask, SALT & PEPPER

"TOPELIE VOSEU" BLUR

10%, 20%, ...

ZLEPSENIE, HISTOGRAM

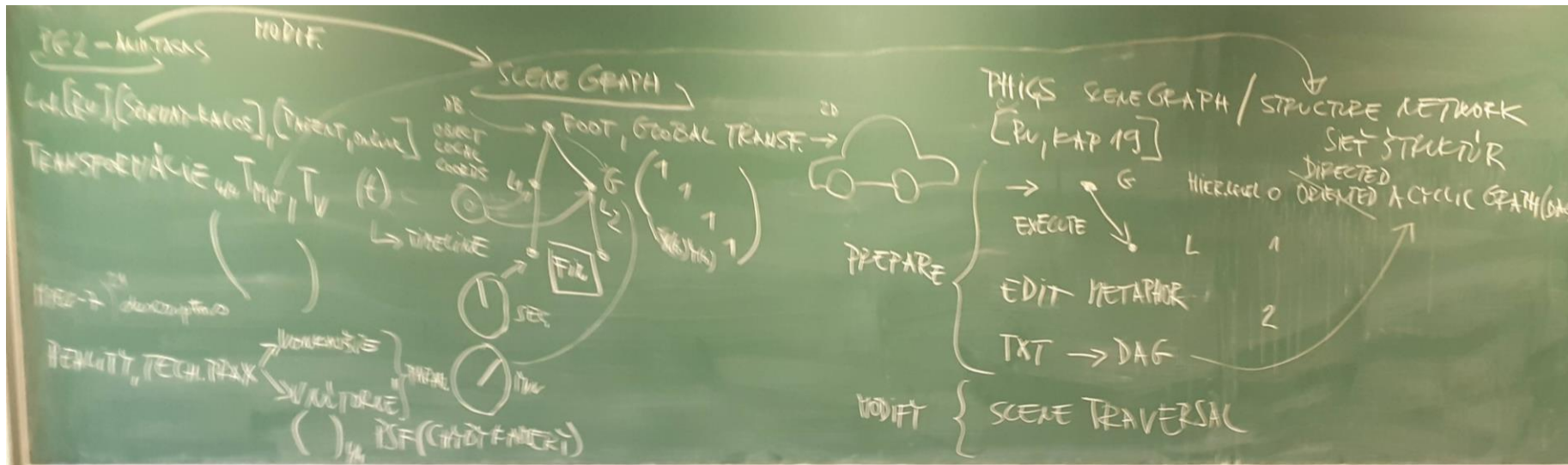
FILTRÁCIA, nap. LOW-PASS, HIGH-PAS (SK: DOKONČENIE PUSTY)

2 TOP CV PROBLEMS

SEKTENTÁCIA

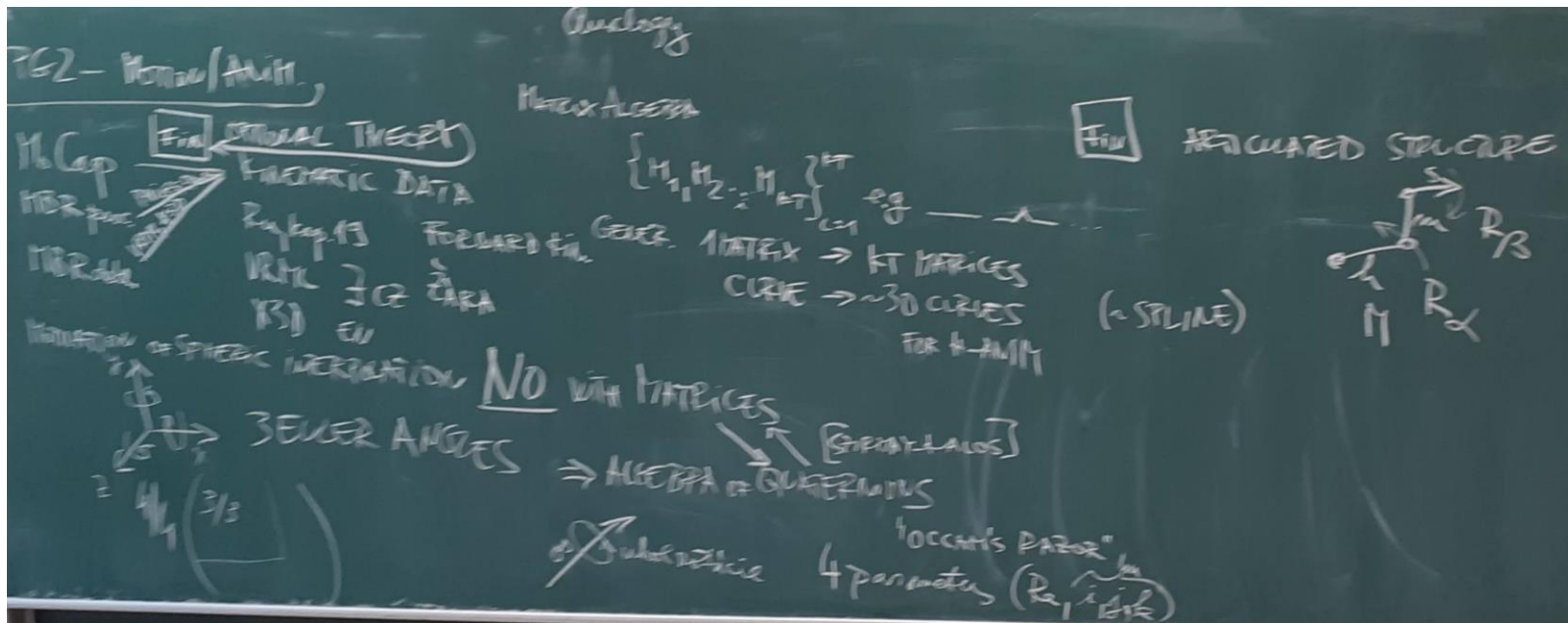
SKOROSPONDENCIA

Image Processing, Fourier, typ úlohy na MID: zlepšite obraz interpoláciou, maskou alebo histogramom. Kap. 7. // Tabuľka PG2-6-LS24 @ M-120, 25. marca.



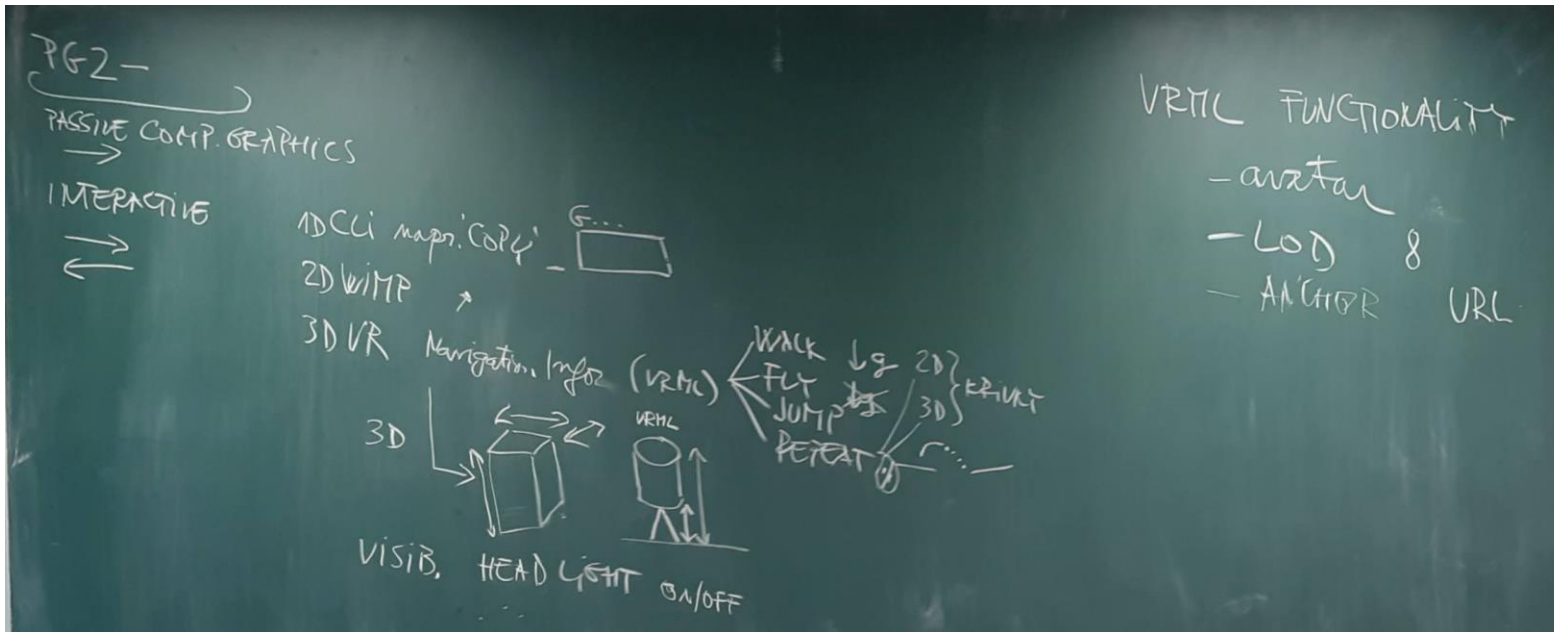
Fin: graf sceny

Real-time animation by Szirmay-Kalos, forward kinematics using PHIGS. Kap. 19. in Ruzicky. // Tabuľka PG2-10-LS24 @ M-120, 29. apríla.



Fin: 2D forward kinematics

Animácia ako modifikácia grafu scény, na prízložené hierarchie MoCap, interpolácia rotácii: kvaterniony. Szirmay-Kalos. // Tabuľka PG2-11-LS24 @ M-120, 6. mája.



Fin: avatar parameters and motion

Interakcia v 3D, funkčnosť VRML: avatar, level-of-details, anchor. Žára: CZ, tools: <https://www.web3d.org/getting-started-x3d>. // Tabuľka PG2-12-LS24 @ M-120, 13. mája.