News
1.2.2023.

Grading

- **Computer graphics course: 0-100 points**
  - Final grade is calculated by combining computer graphics course points with Digital image processing course
- **0-25 points: exam (5.4.2023., 14h, 30min)**
  - 25-35 questions → [0,100]%
  - Exam points: exam percentage * 25
- **0-75 points: project (8.4.2023., 23:59)**
  - Grading is written for each project in project description → [0,100]%
  - Project points: project percentage * 75
  - Outstanding projects: +15 points for the whole course
    - Outstanding project results and documentation

Projects

- Project tasks are finalized and updated.
  - https://github.com/lorentzo/IntroductionToComputerGraphics
- Scoring of tasks is updated.
- Tasks will not change, only updated if something is not clear or well defined.
- Reminder: decide on project (or write your own) and start working on them ASAP.
- Feel free to ask questions about project tasks if something is not clear.

Exam questions

- Exam questions are linked on course github main page next to the lectures
- https://github.com/lorentzo/IntroductionToComputerGraphics

Slide updates

- Lectures 1 and 2 have updated slides: fixing errors and adding explanations
- Updated slides are marked with notification

Emails

- Several students last time expressed their with to do a custom project. Project description should be sent to my email.
- General check: did anyone sent email(s)?
- Send mails both to:
  - lovro.bosnar@itwm.fraunhofer.de
  - lovro.bosnar1@gmail.com

Question on 3D characters

- https://www.mixamo.com/
- https://renderpeople.com/
- https://actorcore.reallusion.com/
- https://pages.adobe.com/character/en/motionlibrary
- http://www.cgchannel.com/2022/05/download-3000-free-mocap-moves-from-bandai-namco-research/
- https://github.com/BandaiNamcoResearchInc/Bandai-Namco-Research-Motiondataset/blob/master/dataset/Bandai-Namco-Research-Motiondataset-1/README.md
- https://github.com/BandaiNamcoResearchInc/Bandai-Namco-Research-Motiondataset/blob/master/dataset/Bandai-Namco-Research-Motiondataset-2/README.md
- https://sites.google.com/a/cgspeed.com/cgspeed/motion-capture
- http://mocap.cs.cmu.edu/
- https://www.rokoko.com/products/motion-library
- https://characterz.design/
- https://www.behance.net/gallery/130321255/3D-Character-Library
- https://sketchfab.com/feed
- https://www.cgtrader.com/free-3d-models/character
- https://dribbble.com/tags/3d_characters
- https://www.artstation.com/marketplace/game-dev/resources/3d-models/character
- https://www.youtube.com/watch?v=p8xQ0waBwPo&ab_channel=askNK

Question on 3D cloth

- https://www.youtube.com/watch?v=pANx7hDeiqM&ab_channel=Markom3D
- https://www.artstation.com/marketplace/game-dev/resources/3d-models/props/clothes-accessories?page=4
- https://ps.is.mpg.de/research_projects/clothing
- https://github.com/lzhbrian/Clothes-3D
- https://www.youtube.com/watch?v=3YNEn5UdGSw&ab_channel=THELUWIZART
- https://www.youtube.com/watch?v=ioXMXbJxBuQ&ab_channel=Dikko
- http://graphics.berkeley.edu/resources/GarmentLibrary/
- https://www.fxguide.com/fxfeatured/cloth-simulation-opening-the-kimono/
- https://www.blendernation.com/2022/06/20/posed-cloth-simulation-for-sculpting/
- https://artfulphysics.com/
- https://la.disneyresearch.com/publication/garment-simulation/
- https://sketchfab.com/tags/clothing
- https://www.cgtrader.com/free-3d-models/clothing
- https://www.behance.net/search/projects/?search=3d+clothing+models

Question on path-tracing

- Ray-tracing:
  - https://www.scratchapixel.com/lessons/3d-basic-rendering/ray-tracing-overview/ray-tracing-rendering-technique-overview.html
  - https://developer.nvidia.com/blog/ray-tracing-essentials-part-1-basics-of-ray-tracing/
  - https://www.youtube.com/playlist?list=PL5B692fm6--sgm8Uiava0IIvUojjFOCSR
  - https://www.youtube.com/watch?v=gsZiJeaMO48&ab_channel=Josh%27sChannel
  - https://advances.realtimerendering.com/s2022/index.html#Lumen
- Path tracing:
  - Builds on ray-tracing and solves full rendering equation using stochastic methods
  - https://www.scratchapixel.com/lessons/3d-basic-rendering/global-illumination-path-tracing/introduction-global-illumination-path-tracing.html
  - https://blogs.nvidia.com/blog/2022/03/23/what-is-path-tracing/
  - https://www.pbr-book.org/3ed-2018/Light_Transport_I_Surface_Reflection/Path_Tracing