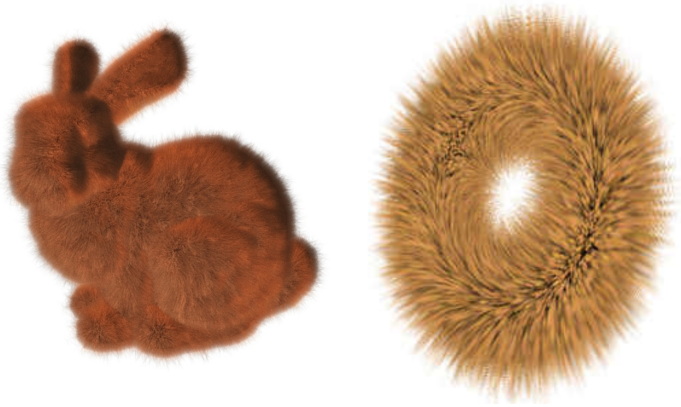
ECM3423: Computer Graphics
Final Project - Fur Effect



Submission: The project will be submitted in a ZIP file, on the **25th of November 2020, before noon**, using Harrison E-submit **and** BART. As usual, late penalties will apply.

Assessment: The project will be worth 40% of your module mark, and will be assessed as follows:

mark	value	criteria
A+	40	The demonstrated program is well designed and written, and solves the problem flawlessly and efficiently.
A	30	The program works as specified, and the code is sensible and well understood.
B	20	The program almost works, but there are some remaining minor problems.
C	10	The problem is still poorly understood and/or the program does not work.
F	0	Nothing is submitted.

Fur effect

The aim of this project is to load a 3D model of an object and render realistic looking fur to its surface. You are required to provide the results for rendering fur on two objects. There will be a few object models available on the VLE page. You can choose one or two of these example objects or any object of your choice. The colour and texture of the fur is up to you.

Cotrol keys: The following keys should be implemented to control the rendering:

- 'l': increase the fur length
- 'k': decrease the fur length
- 'm': increase fur density
- 'n': decrease fur density
- Arrow keys: rotations
- Mouse: translations
- 'b': moves the fur in one random direction (This one is for fun)

Submission package: You are required to submit the following items:

- Code
- Python requirements.txt
- You should also provide a demo of your code by recording your screen while running the code and generating the results.

Criteria: When assessing this project, we will be looking for the following:

- The code should generate the required scenes/objects with no artefact or bug.
- The control keys function properly.
- The code should be well documented, explaining well your design and reasoning.
- The code should be reasonably efficient and concise.
- The video should demonstrate how your code generates the results as well as testing the control keys.