Practical session: Disparity map computation by propagation of seeds

Objective: Compute the disparity map associated to a pair of images. We start from high confidence points (seeds), then expand by supposing that the disparity map is regular.

- ▶ Get initial program from the website.
- ▶ Compute disparity map from image 1 to 2 of all points by highest NCC score.
- ▶ Keep only disparity where NCC is sufficiently high (0.95), put them as seeds in a `std::priority_queue`.
- ▶ While queue is not empty:
  1. Pop P, the top of the queue.
  2. For each 4-neighbor Q of P having no valid disparity, set d_Q by highest NCC score among $d_P - 1$, d_P, and $d_P + 1$.
  3. Push Q in queue.

Hint: the program may be too slow in Debug mode for the full images. Use cropped images to find your bugs, then build in Release mode for original images. During propagation, make sure to stay in interval `[dMin,dMax]`.