

C6.2/B2. Continuous Optimization

Non-examinable material (from slides)

This note lists the **non-examinable** parts of the slides of the *C6.2/B2 Continuous Optimization* lectures. These were already mentioned in class, during the lectures. If anything in the list below is unclear, please email: cartis@maths.ox.ac.uk.

All references below are to the *slides* of the lecture course, posted on the course website

<https://courses.maths.ox.ac.uk/node/42762>

1. Lecture 5: the second half of slide 11 ("Quasi-Newton methods...BFGS"), from "Given $B_k = J_k J_k^T$..." till end of the respective slide (basically the interpretation of BFGS formula using the Cholesky factorization of B_k).
2. Lecture 5: last slide, entitled "Appendix: Providing derivatives to algorithms".
3. Lectures 9 – 10: the proof of Theorem 19 (slides 23–24).
4. Lectures 13–16 ("Interior point methods"): the proof of Theorem 28 (slides 13–14).
5. Lectures 13–16: "Ill-conditioning revisited (non-examinable)" (slide 22).
6. Lectures 13–16: "The simplex vs. interior point methods for LP" (last slide)