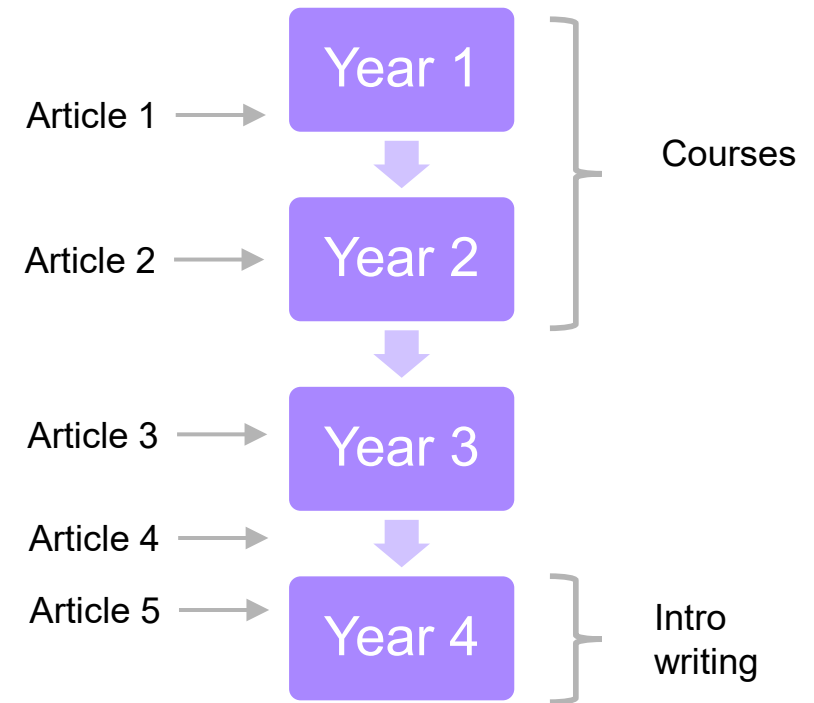

Sharing (good) advice for effective supervision

Simo Särkkä

4-year thesis work, what does it consist of?

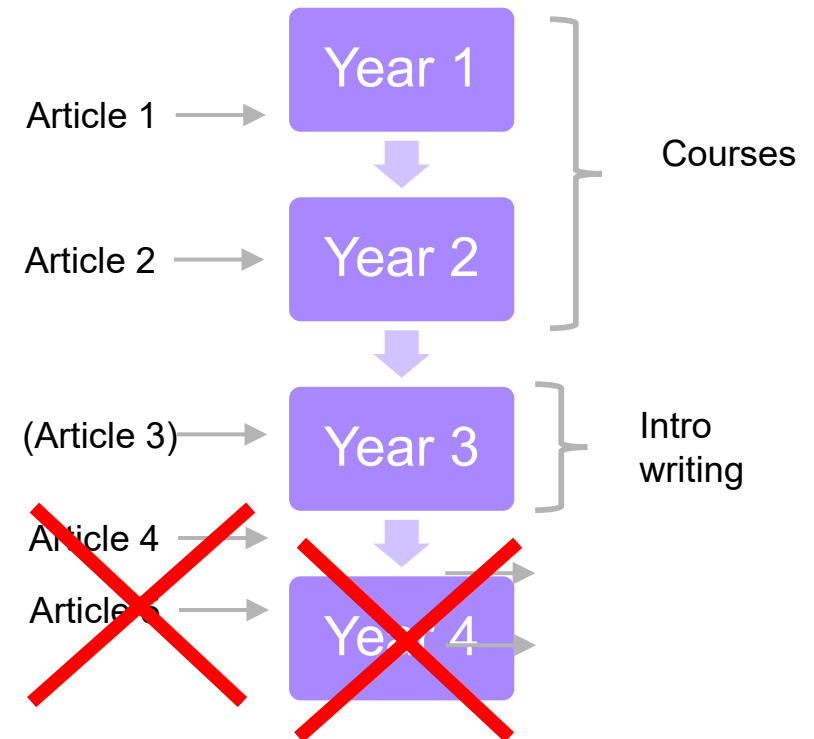
- ½ years (or 60%) of full time studying
- Small amount of teaching or supervision
- 4-5+ published/submitted articles
 - **This is the most important and the most difficult part!**
- Written thesis



A!

Sidetrack: What would 3-year thesis work look like?

- 1/4 years (or 30%) of full time studying?
- ~~Small amount of teaching or supervision~~
- 2-3 published/submitted articles
 - **These are just the first “rehearsal” articles**
- Written thesis



A!

Practices that have worked out

- Student should write a proper **research plan** for the 4 years
 - Titles and timings of the publications included
- **Don't** let the student **study full time for 1 year**
 - Instead, e.g., motivate the student to extend a course project into an article
- Have **regular discussions** with the student
 - If you are not busy, then ad-hoc discussions are enough
 - If you are busy, then weekly/biweekly is necessary
- Note that some students need **more guidance** than others

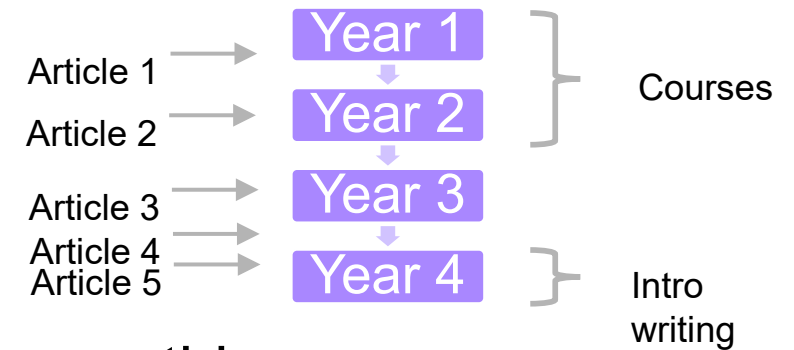
A!

Practices that have worked out (cont.)

- Let the student **invent** things
 - Curiosity-driven research leads to best results
 - In the best case, the student accidentally re-invents supervisor's ideas
- **Don't** put student 100% to **BF or company project**
 - Companies don't usually have incentive to publish
 - Schedule is suitable for engineering existing solutions, not for real research
- Be careful with the **teaching and supervision load**
- **Research visits** abroad are often a good idea

A!

Article strategy



- **The first article** (in year 1) should be something **easy**
 - Incremental work submitted to a mediocre conference is fine
 - Project work, master's thesis extension, entry from supervisor's small-idea-bank
- **The second article** right after the first
 - Can be an extension or continuation – or something completely different
- **The third one** might still need tight supervision
- **The fourth and fifth** etc. come with the same momentum

A!

Conclusion

- Doctoral thesis = **4-5 papers in 4 years**
- **Scheduling of papers** should be planned and monitored
- **First paper** should be **easy** and done already in the 1st year
- The student should be pushed to **invent** things
- Avoid too much **engineering/teaching/supervision load**
- Don't forget to give opportunities for **research visits**
- Even with careful planning, **each case is different**

A!