



## IN [5/9]440: static analysis

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### Handout 2

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#### Handout 2: Intro: Constraint-based analysis

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#### CBA

The abstract grammar of the functional language (currently) looks as follows:

$$t ::= [x]^l \mid [\mathbf{fn} x \Rightarrow t]^l \mid [t t]^l \text{ terms}$$

The  $l$  stands for labels. Later, the grammar may be extended and refined.

**Example 1 (Simple program)** The very simple labeled program used in the example is the following:

$$[ [\mathbf{fn} x \Rightarrow [x]^1 ]^2 [\mathbf{fn} y \Rightarrow [y]^3 ]^4 ]^5$$

#### References

- [1] Flemming Nielson, Hanne-Riis Nielson, and Chris L. Hankin. *Principles of Program Analysis*. Springer Verlag, 1999.