# Roadmap to Computing Topic: Computational Costs

Our next Roadmap Topic is 'Computational Costs.' The introductory talk (~34 minutes) is at

http://vimeo.com/17277312

Below are suggested related topics for research reports. There are many other possible topics. Whichever topic you choose, in addition to identifying and presenting as precisely as possible the core concept of the topic, you may explore its development, social impact, and related controversies, both technical and social/political. If you choose a person, your report and presentation should focus on the contributions of the person to the topic at hand and present biography only as background.

3-SAT
Juris Hartmanis
Karp reduction
NP-complete
P != NP
RSA algorithm
Raymond Smullyan
Richard Karp
Stephen Cook
approximation algorithm
complexity of bin packing
complexity of factoring
complexity of graph isomorphism
complexity of primality testing
complexity of searching
complexity of sorting algorithms
intractable problem
measures (resources) of computational
complexity
polynomial vs exponential functions
probabilistic algorithm
public key cryptography
rate of growth of functions
suffix tree

```
ERROR: typecheck
OFFENDING COMMAND: restore

STACK:

-null-
-null-
```