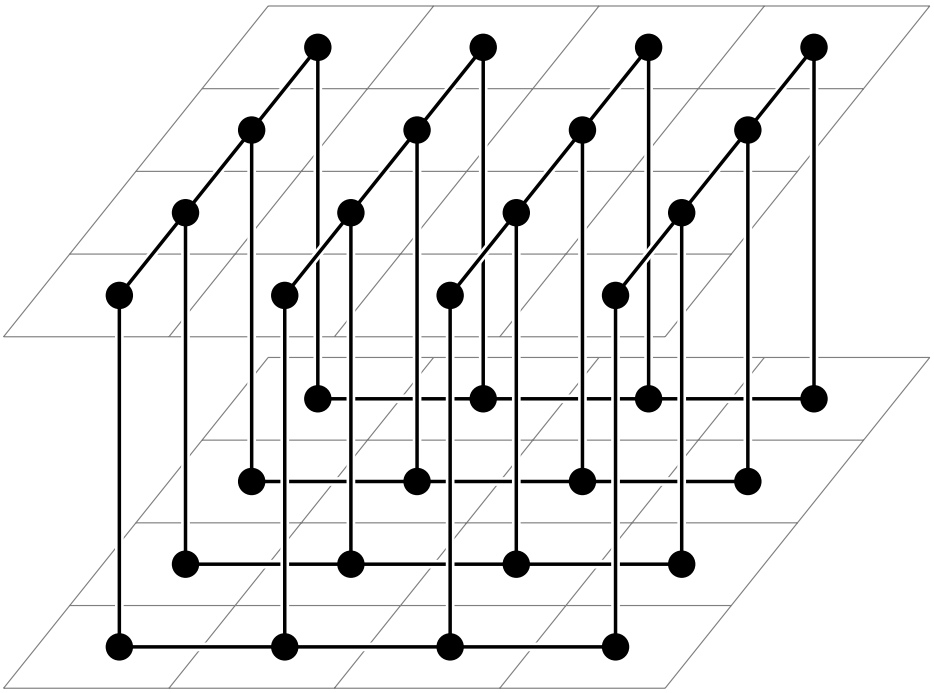
Docs



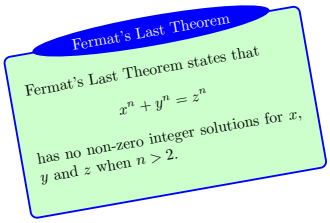
A fancy title

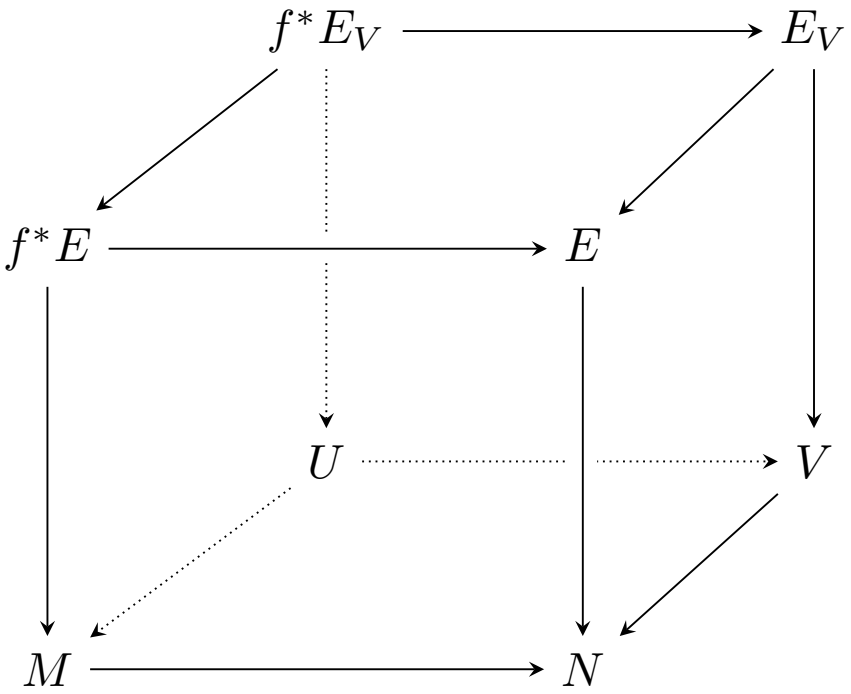
To calculate the horizontal position the kinematic differential equations are needed:

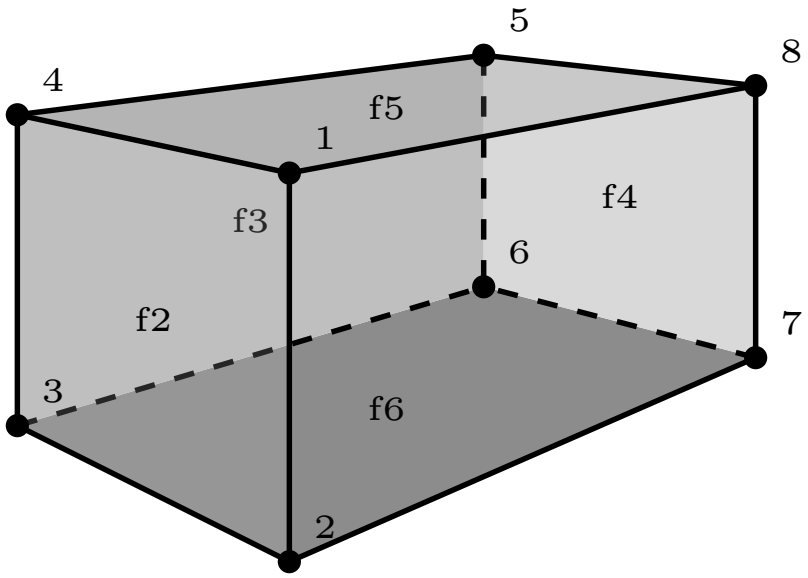
$$\dot{n} = u\cos\psi - v\sin\psi \quad (1)$$
$$\dot{e} = u\sin\psi + v\cos\psi \quad (2)$$

For small angles the following approximation can be used:

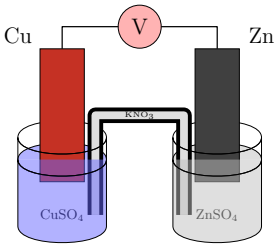
$$\dot{n} = u - v\delta_\psi \quad (3)$$
$$\dot{e} = u\delta_\psi + v \quad (4)$$



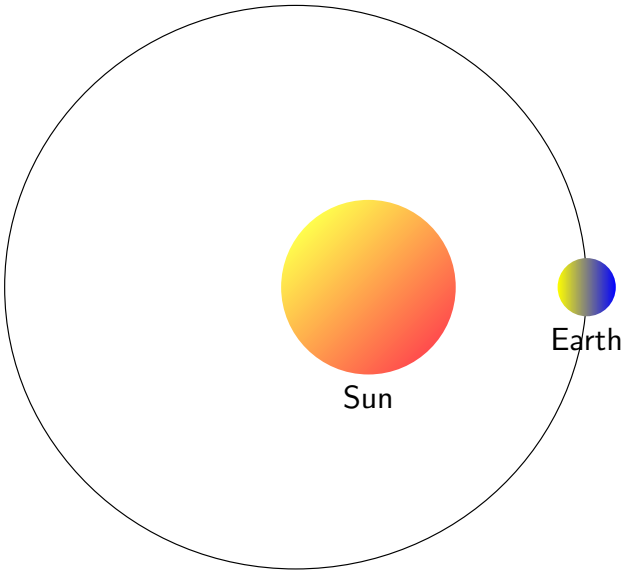

f^*E_V
E_V
f^*E
E
U
V
M
N

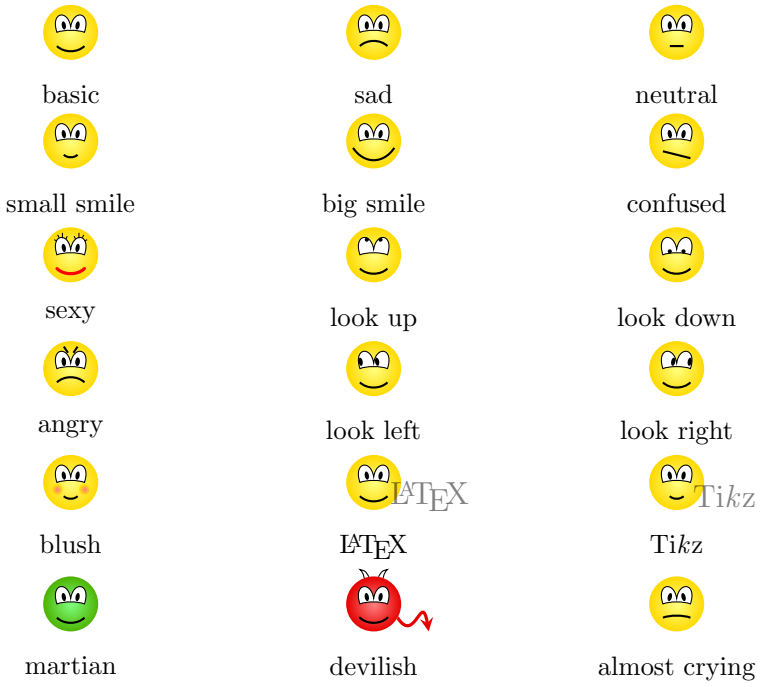

5
8
4
f5
1
f4
f3
6
f2
7
3
f6
2

Daniell's Pile



1


Earth
Sun



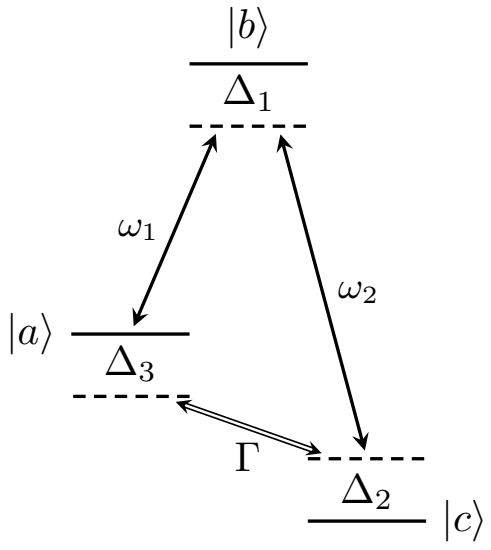
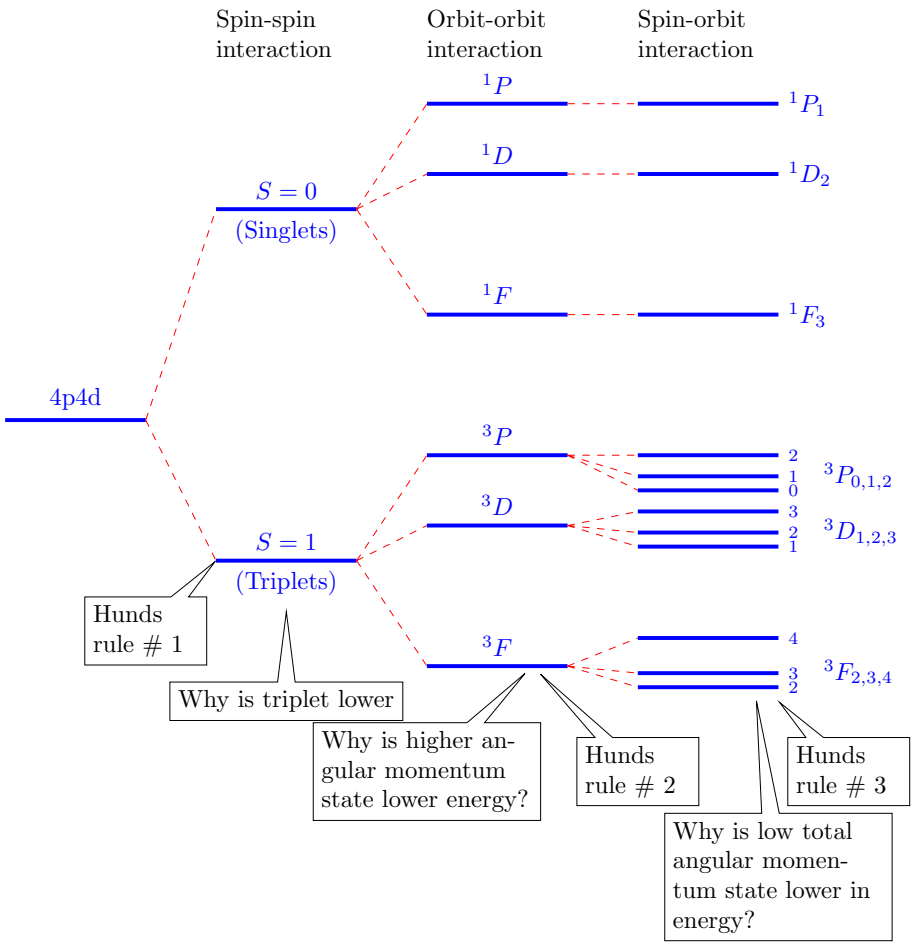
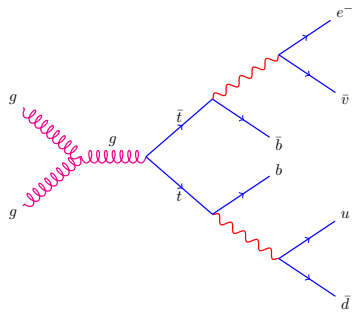


Figure 1: A level diagram with some transitions drawn in TikZ, resized, and placed in a figure environment.


Spin-spin interaction
Orbit-orbit interaction
Spin-orbit interaction
^1P
$^1P_1$
^1D
$^1D_2$
$S = 0$
(Singlets)
^1F
$^1F_3$
4p4d
^3P
2
1
0
$^3P_{0,1,2}$
^3D
3
2
1
$^3D_{1,2,3}$
$S = 1$
(Triplets)
^3F
4
3
2
$^3F_{2,3,4}$
Hunds rule # 1
Why is triplet lower
Why is higher angular momentum state lower energy?
Hunds rule # 2
Why is low total angular momentum state lower in energy?
Hunds rule # 3



1

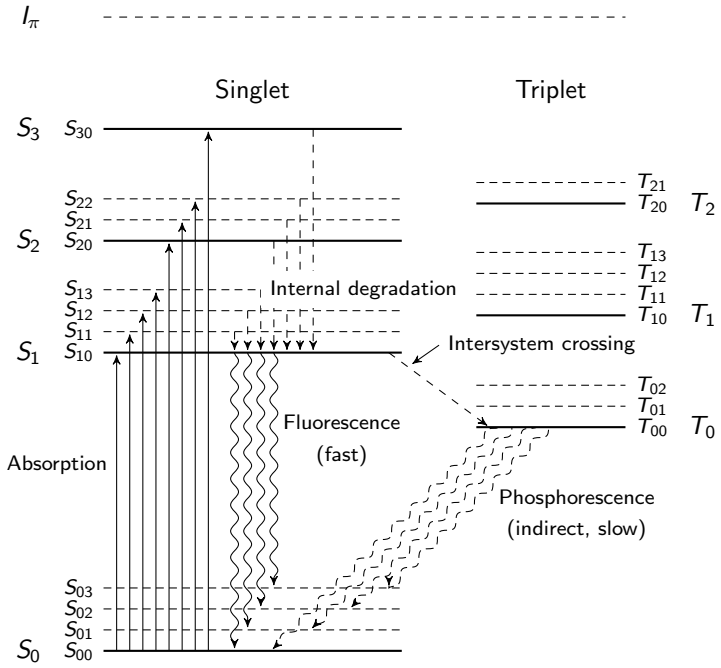
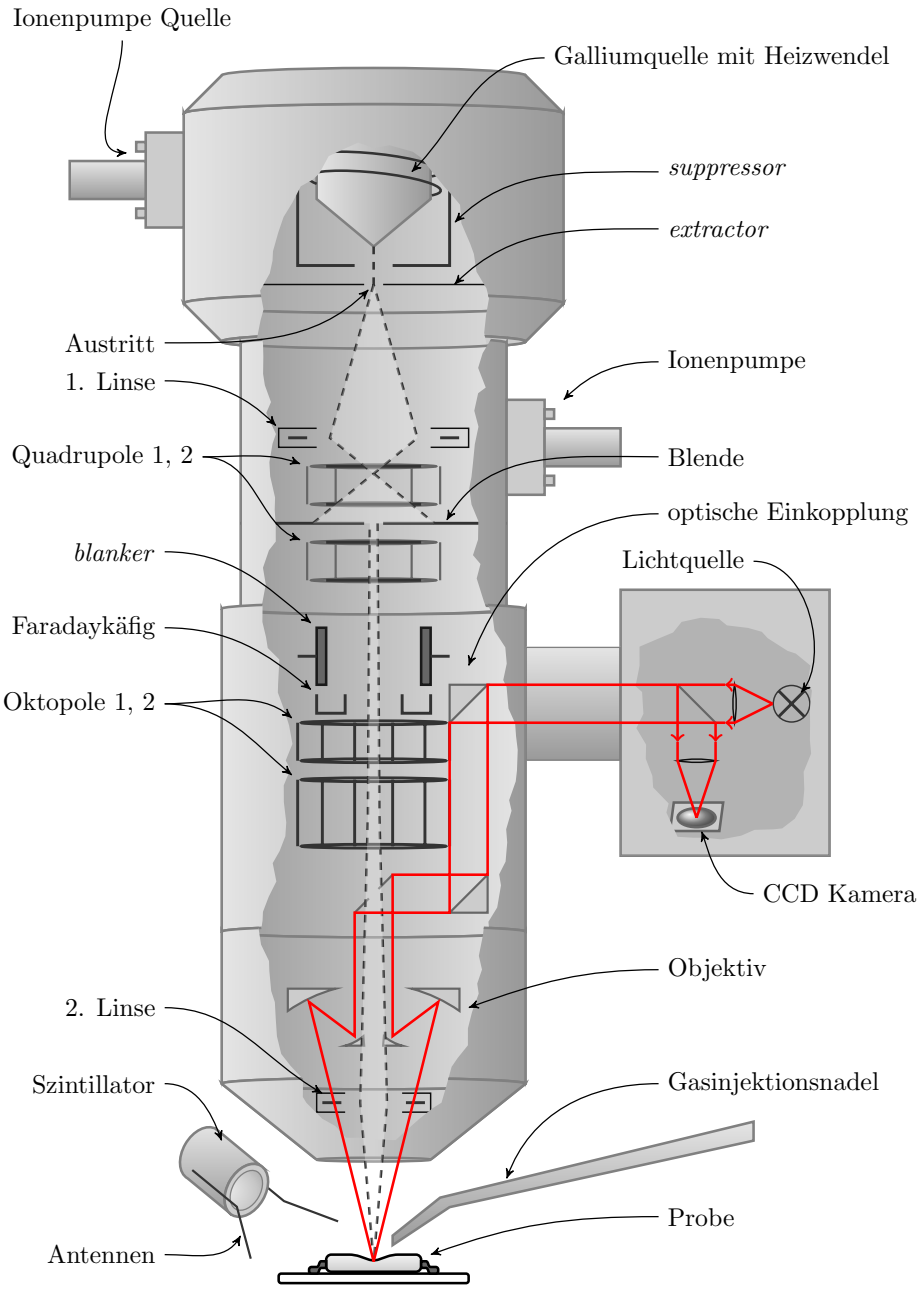
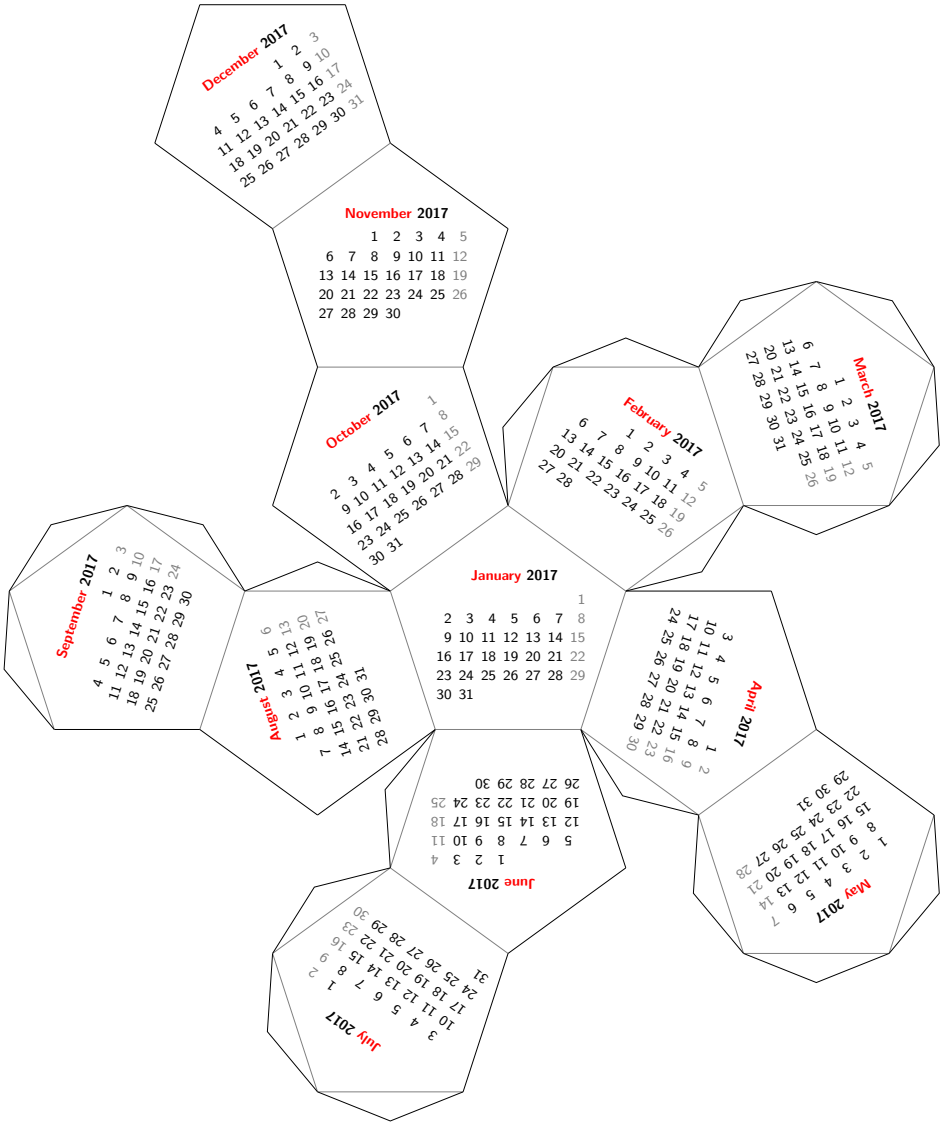
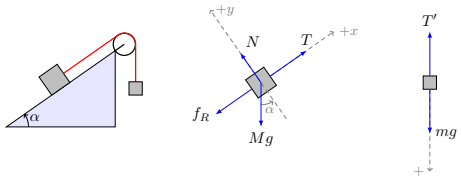


Figure 1 – Typical energy levels for π-orbitals of a fluor molecule. Spin singlet (S) and triplet (T) states are separated for clarity. The ionization level I_π is shown at the top. Excited states as well as vibrational sublevels (dashed horizontal lines) are shown. Internal degradation is a non-radiative process, while fluorescence and phosphorescence are radiative decays. The decay $T_0 \to S_0$, however, is indirect, by interactions with other molecules.


Ionenpumpe Quelle
Galliumquelle mit Heizwendel
suppressor
extractor
Austritt
1. Linse
Ionenpumpe
Quadrupole 1, 2
Blende
optische Einkopplung
blanker
Lichtquelle
Faradaykäfig
Oktopole 1, 2
CCD Kamera
Objektiv
2. Linse
Szintillator
Gasinjektionsnadel
Probe
Antennen


December 2017
November 2017
October 2017
March 2017
February 2017
January 2017
September 2017
August 2017
April 2017
May 2017
June 2017
July 2017



1

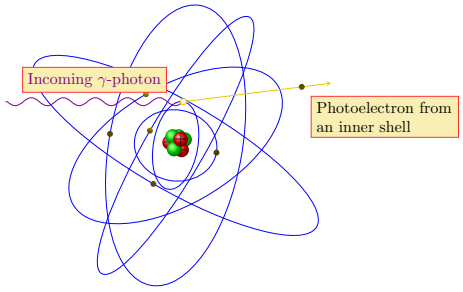


Figure 1: Photoelectric effect

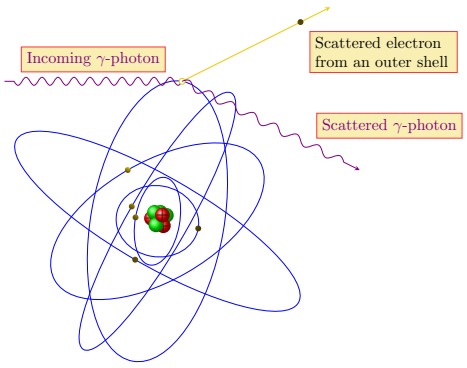
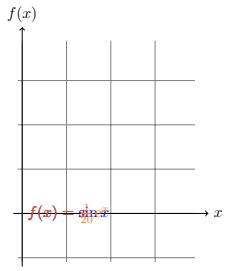


Figure 2: Compton scattering

- Coriolis acceleration

$$\vec{a}_p = \vec{a}_o + \frac{{}^b d^2}{dt^2}\vec{r} + 2\vec{\omega}_{ib} \times \frac{{}^b d}{dt}\vec{r} + \vec{\alpha}_{ib} \times \vec{r} + \vec{\omega}_{ib} \times (\vec{\omega}_{ib} \times \vec{r}) \qquad (1)$$

- Transversal acceleration
- Centripetal acceleration


$f(x)$
x

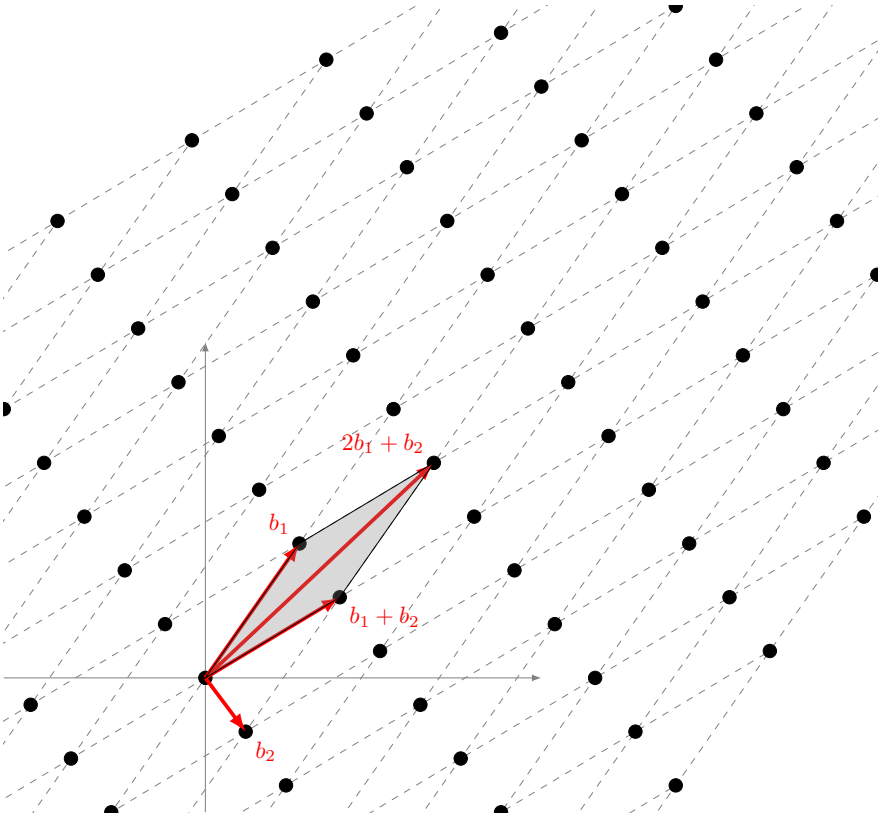
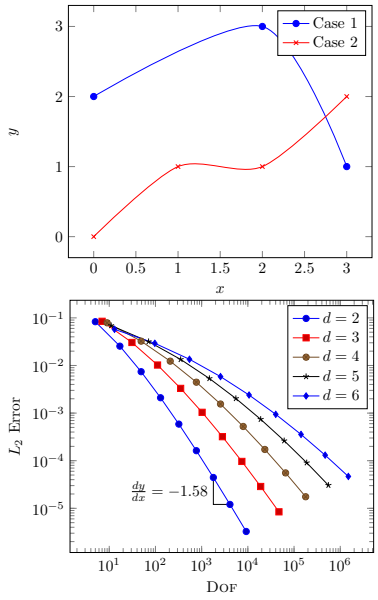
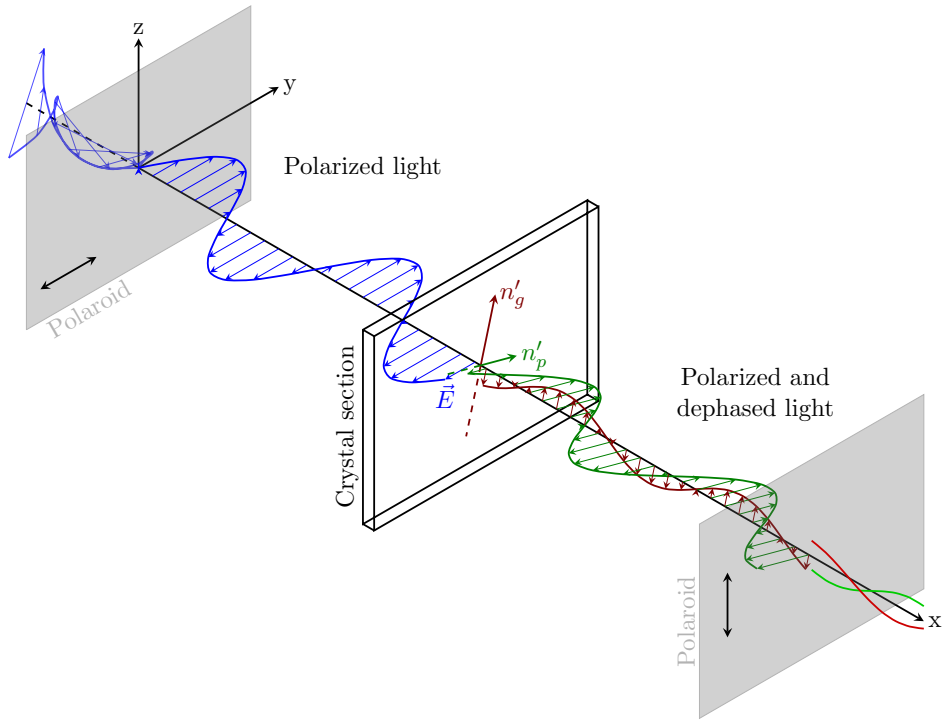


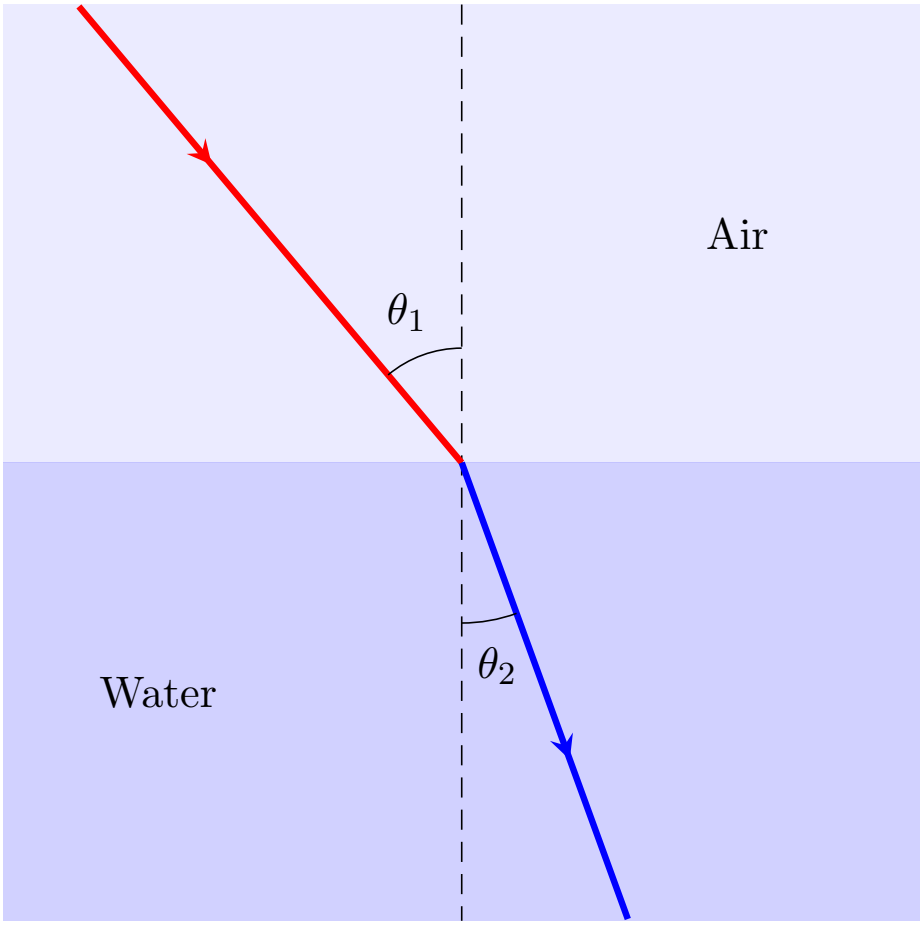
Figure 1: Babai's algorithm works poorly if the basis is "bad".

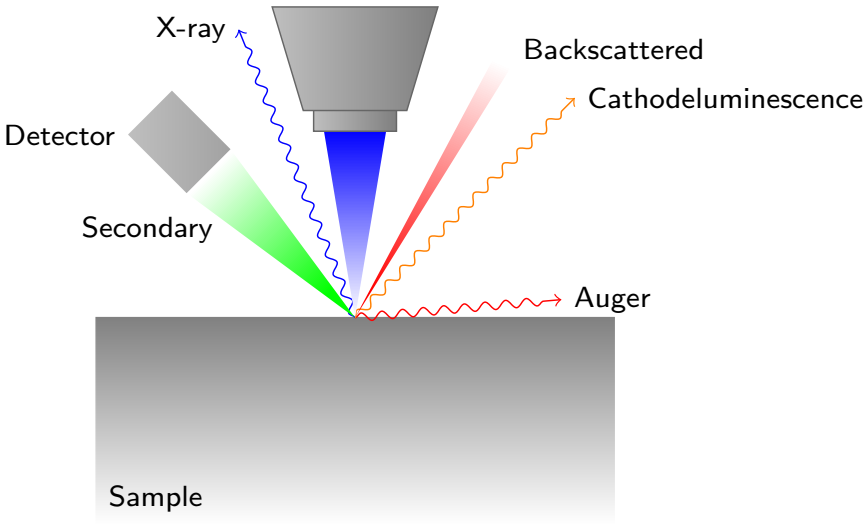

Case 1
Case 2
y
x
0
0.5
1
1.5
2
2.5
3
$d = 2$
$d = 3$
$d = 4$
$d = 5$
$d = 6$
L_2 Error
$\frac{dy}{dx} = -1.58$
Dof

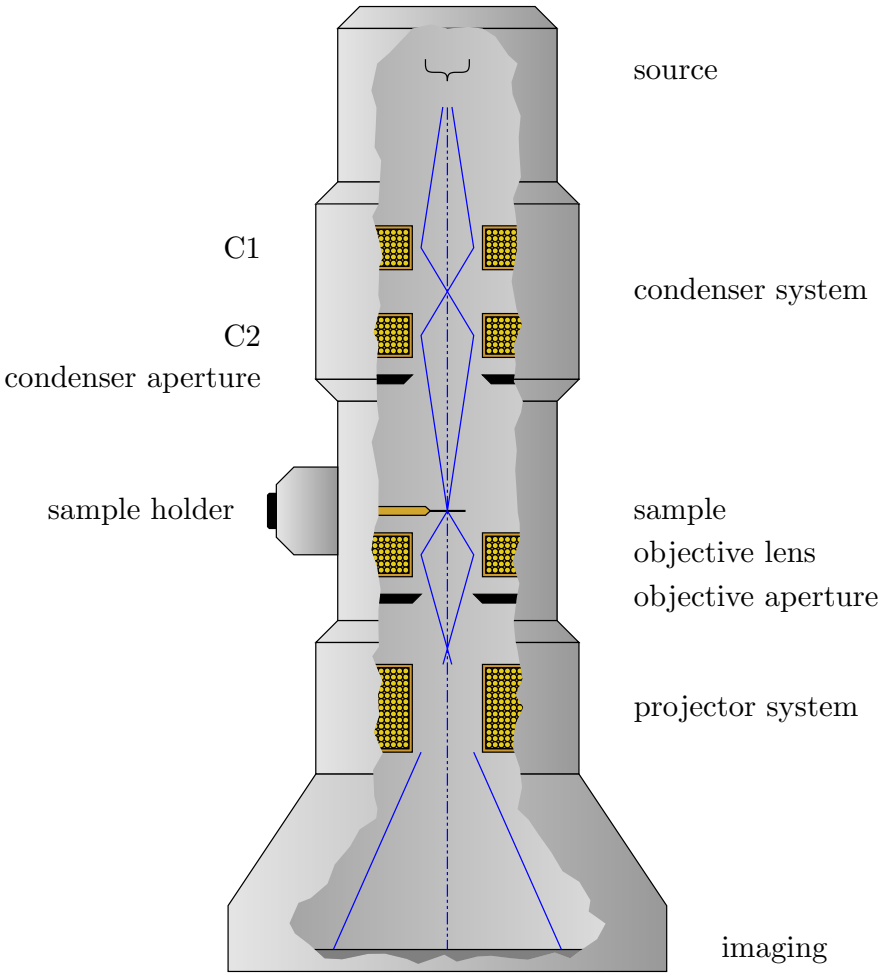
1

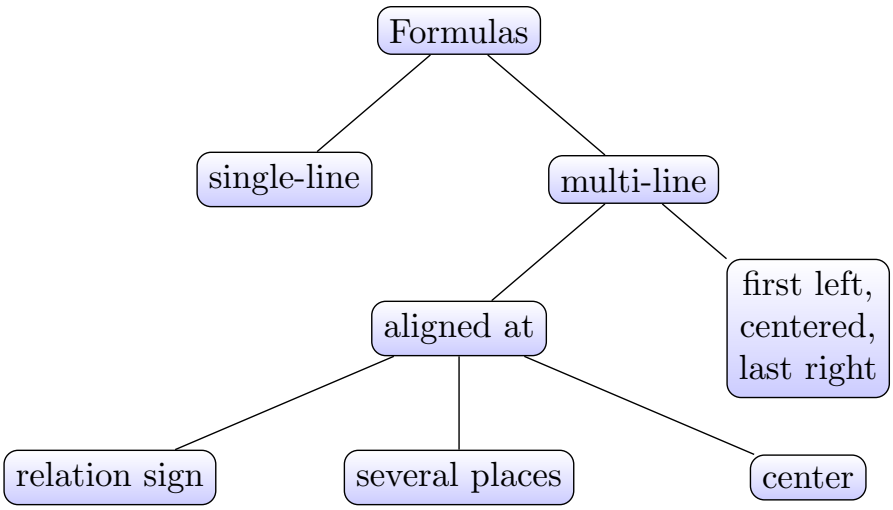


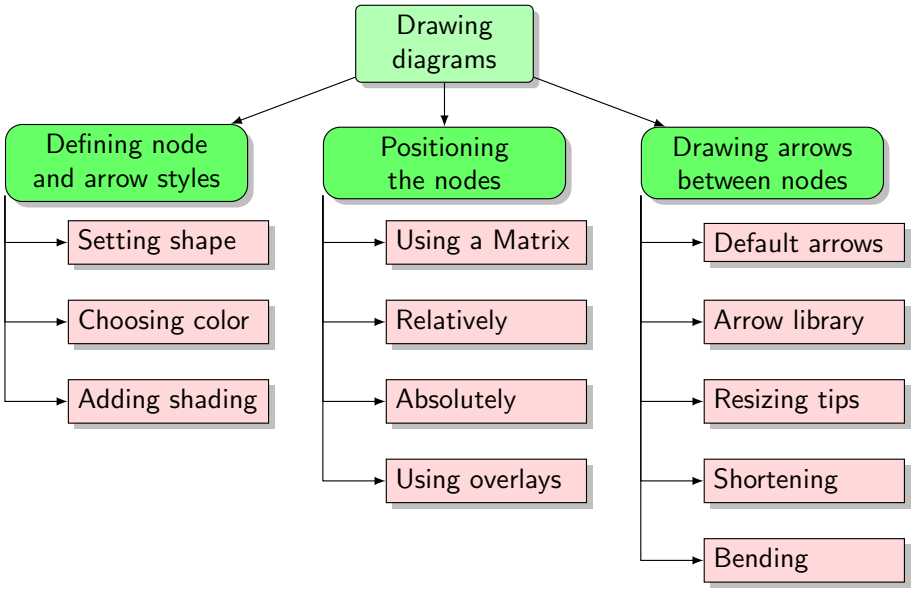
Light behavior in a petrographic microscope with light polarizing device. Only one incident wavelength is shown (monochromatic light). The magnetic field, perpendicular to the electric one, is not drawn.


Air
θ_1
Water
θ_2


X-ray
Backscattered
Cathodeluminescence
Detector
Secondary
Auger
Sample


source
C1
condenser system
C2
condenser aperture
sample holder
sample
objective lens
objective aperture
projector system
imaging


Formulas
single-line
multi-line
aligned at
first left, centered, last right
relation sign
several places
center


Drawing diagrams
Defining node and arrow styles
Positioning the nodes
Drawing arrows between nodes
Setting shape
Choosing color
Adding shading
Using a Matrix
Relatively
Absolutely
Using overlays
Default arrows
Arrow library
Resizing tips
Shortening
Bending