

The Best Quick Introduction

If you would like to get a very clear physical explanation of NMR and MRI, watch these videos

<http://www.magritek.com/videos.html>

Videos 1-7 in this series explain the basic physics of pulse NMR
Videos 8-10 explain MRI (magnetic resonance imaging)

Introduction to MRI Videos

http://www.youtube.com/watch?v=6_2D3Lh1v74

<http://www.youtube.com/watch?v=9E1GoWhSlho>

<http://www.youtube.com/watch?v=0YBUSOrH0lw>

http://www.youtube.com/watch?v=GDEIT6Tz7_Q

<http://www.youtube.com/watch?v=ctwXQ5xK4PU>

The Best Applets and Animations

<http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/precess/precess.htm>

http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/eth_anim/hahnecho.gif

http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/eth_anim/Bloch_normal.gif

http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/eth_anim/Bloch_shortT2.gif

http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/eth_anim/puls_evol.gif

<http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/movies/spinecho90x180x.mov>

<http://demonstrations.wolfram.com/MagneticResonanceAndBlochEquations/>

Everything after this point is Optional Supplemental Material (some of it is excellent)

More Good NMR Applets and Animations

<http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations.html>

<http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/old/downloads.htm>

http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/animated_gifs/Fid_one_line.gif

http://mutuslab.cs.uwindsor.ca/schurko/nmrcourse/animations/animated_gifs/Fid_two_lines.gif

<http://comp.uark.edu/~jgeabana/blochapps/index.html>

<http://comp.uark.edu/~jgeabana/blochapps/blocheqs2.html>

<http://comp.uark.edu/~jgeabana/blochapps/bloch.html>

<http://comp.uark.edu/~jgeabana/blochapps/qfunction.html>

Good Applets about Classical Gyroscopes

<http://www.eng.umd.edu/HAMLET/Gyro/index.htm>

<http://www.um.es/fem/Ejs/EjsExamples3.3/Simulations/Gryscope.html>

<http://www.uworks.net/demo/gyroscope.html>

<http://www.stuleja.org/vscience/osp/contents/osp3d/gyroscope.html>

NMR According to Wiki and a few others

http://en.wikipedia.org/wiki/Nuclear_magnetic_resonance

http://en.wikipedia.org/wiki/NMR_spectroscopy

http://en.wikipedia.org/wiki/Bloch_equations

<http://bouman.chem.georgetown.edu/nmr/bloch/bloch.htm>

<http://www.e-mri.org/>

<http://www.cord.edu/faculty/ulnessd/legacy/spring2000/anne/index.htm>

http://en.wikipedia.org/wiki/Rabi_cycle

NMR Courses and Textbooks Online

<http://www.chem.queensu.ca/FACILITIES/NMR/nmr/webcourse/>

<http://www.chem.queensu.ca/FACILITIES/NMR/nmr/webcourse/precess.htm>

<http://teaching.shu.ac.uk/hwb/chemistry/tutorials/molspec/nmr1.htm>

MRI and fMRI Courses and Textbooks Online

<http://www.cis.rit.edu/htbooks/mri/>

<http://www.mritutor.org/mritutor/index.html>

<http://www.e-mri.org/nmr/learning-objectives.html>

MRI and fMRI Background

<http://www.magnet.fsu.edu/education/tutorials/magnetacademy/mri/>

<http://www.magnet.fsu.edu/education/tutorials/magnetacademy/mri/documents/mri.pdf>

http://en.wikipedia.org/wiki/Magnetic_resonance_imaging

http://en.wikipedia.org/wiki/Functional_magnetic_resonance_imaging

<https://www.fmrib.ox.ac.uk/Members/stuart>

<http://users.fmrib.ox.ac.uk/~stuart/thesis/>

<https://www.fmrib.ox.ac.uk/Members/stuart/meeting-presentations>

NMR in chemistry

<http://vam.anest.ufl.edu/forensic/nmr.html>

<http://www.files.chem.vt.edu/chem-dept/hbell/simulation/hb2/ftsimstuff/simulateinfo.htm>

<http://www.files.chem.vt.edu/chem-dept/hbell/simulation/hb2/TESTPAGE.htm>

<http://www.bruker-nmr.de/guide/eNMR/chem/NMRnuclei.html>

The Quantum Mechanics of NMR, Two-level Systems, and Rabi Oscillations

<http://jdhosts.net/michaud/RabiOscillations.html>

<http://www.itp.tu-berlin.de/menue/lehre/owl/quantenmechanik/parameter/en/>

<http://xbeams.chem.yale.edu/~batista/vvv/node13.html>

<http://www.phys.cwru.edu/courses/p431/notes-2003/node18.html>
http://users.fmrib.ox.ac.uk/~stuart/thesis/chapter_2/section2_2.html
<http://minty.stanford.edu/Ph195/wednesday9.pdf>

Nobel Prizes for MRI

http://nobelprize.org/nobel_prizes/medicine/laureates/2003/lauterbur-interview.html
http://nobelprize.org/nobel_prizes/medicine/laureates/2003/mansfield-interview.html
http://nobelprize.org/nobel_prizes/medicine/laureates/2003/illpres/
http://www.chemheritage.org/exhibits/online_exhibits/lauterbur/index.html
http://nobelprize.org/educational_games/medicine/mri/index.html

Berkeley's NMR videos are here

<http://socrates.berkeley.edu/~phylabs/adv/index.html>

Under the heading

111-LAB Videos; Introduction to Experiments, Oral Reports, Safety & Lectures

The pulsed NMR video is the more relevant of the two

Leftovers

<http://www-mrsrl.stanford.edu/~brian/mri-movies/>
<http://www.shokhirev.com/nikolai/abc/nmrtut/NMRtut.html>
<http://www.shokhirev.com/nikolai/abc/nmrtut/NMRtut1.html>
<http://ascaris.health.ufl.edu/classes/bch6746/>
<http://www-mrsrl.stanford.edu/~brian/bloch/>
<http://www.cis.rit.edu/htbooks/nmr/>
<http://www.bionmr.com/board/showthread.php?t=12> Huge Index !!!

Just for fun

<http://web.mit.edu/8.13/www/JLExperiments/Hooray.mp3>
<http://web.mit.edu/8.13/www/JLExperiments/Twinkle.mp3>
<http://www.youtube.com/watch?v=GFIvXVMbII0&feature=related>
<http://www.youtube.com/watch?v=SmwIzwGMMwc&feature=related>
<http://www.youtube.com/watch?v=YIIUXHZR3ZA&feature=related>
<http://www.youtube.com/watch?v=SXx2VVSWDMo&feature=related>
<http://www.youtube.com/watch?v=8wHDn8LDks8&feature=related>
<http://www.youtube.com/watch?v=pmTXtbRR7c0&feature=related>
<http://www.youtube.com/watch?v=V9QW0ruiCJo&feature=fvw>