

Channel Comments for the Numerical Methods Guy's channel

June 9, 2010

Channel Comments (111)



penguinz (13 hours ago)

You're awesome! You've helped me out so much this quarter, and I'd just like to say thanks :)



rj3green (3 days ago)

Thanks for the videos. Unfortunately my professor doesn't solve real examples in class so it becomes very difficult to learn the material, especially with a midterm exam coming up. These videos will hopefully allow me to pass the course.



charity924 (3 days ago)

best professor i have ever seen



deen2dam (5 days ago)

Excellent sir ! i wish u would be our university lecturer too.



miidoxi (6 days ago)

I have my term exam in numerical tomorrow and i left all things and rest in front of your videos it's really teaches how to understand then how to solve too, thanks. hope do well in exams.



footbagverde (1 week ago)

very helpful sir.. thanks



m0ney17 (2 weeks ago)

Appreciate your videos!!! extremely helpful!!! thank you



s1u8n (3 weeks ago)

fantastic stuff!



rahsan11 (3 weeks ago)

Sir u are very good teacher,



afrocarter90 (3 weeks ago)

most excellent lectures



Zuneowner (3 weeks ago)

LIFE SAVER !!!!!



m3an55 (1 month ago)

thank u so much



priyansh12c (1 month ago)

thank you sir.....
you are an excellent teacher.....
your videos have been a great help.



aparnaphilip (1 month ago)

Thank You very much professor! I was having some troubles with Taylor series and now I'm much better off to take my AP Calculus BC exam :)



romeoamu87 (1 month ago)

the world needs more people like you, taking your free time to teach, in way its very touching. the lectures are great and easy to follow thanks a trillion times



motomodder123456789 (1 month ago)

this is simply great!!! I really appreciate your efforts in helping all students



divinenuker (1 month ago)

Amazing Stuff Professor!

Would it be possible for you to add a little bit about Finite Element Method?

Just a quick 5 - 10 minute video?

Thanks!!



1chandramanishukla (1 month ago)

Hello Sir, I am a B.Tech. student from IIT Kanpur, i was going to fail my numerical methods course (as the class was 8 in the morning ;)) ... i googled for 'runge kutta example', and you showed up on Youtube ... your videos helped me a lot, thanks for reaching out to the net community with such knowledge and clarity of methods ...



strawberry5999 (1 month ago)

amazing elaboration! Thankyou so much



jamescboyd (1 month ago)

Thank you, sir! You are an excellent teacher.



clayaputexas (1 month ago)

Thanks so much for your time! These videos are so helpful and im sure i will refer back to them throughout the rest of my collegiate career!



olgis (1 month ago)

thank you very much! Your videos have explained the subject more thoroughly than my prof did. :)



clemernitsch (2 months ago)

Very good videos!! What a nice explanation! U r an excellent teacher ☺☺
Thanks for the videos.



saulhidalgo (2 months ago)

Thanks you very much for your videos. They helped me a lot =D



vss2388 (2 months ago)

My professor should watch your videos and learn how to teach the class.....lol.....



avatarDelCaos (2 months ago)

Your classes are priceless, I'm from Venezuela, thanks a lot for your work, I'm learning a lot.



jessedoran (2 months ago)

amazing! can actual understand whats going on with these explanations! Keep up the good work! Impossible to follow my own prof!



yesse17 (2 months ago)

Great lectures!



pemulung (2 months ago)

Many professors but few are good in teaching. This is very very nice



InspectorStrange (2 months ago)

Thank you so much. You're videos are so fantasticly helpful.



FriskyBat (2 months ago)

I really appreciate your work, you are a true philanthropist!



orlandoryo (2 months ago)

Great videos!!! Thanks a lot!!!



outlawkelb (2 months ago)

This is trule very helpful, i have an exam on friday many of the stuff you covered. thanks.



f0r3v3r88 (3 months ago)

best numerical method library ever!!!!!!!!!!!!!!!!!!!!!!
such clear lectures



saleemo20 (3 months ago)

hello professor! i am really enjoying your lectures and you are very clear in you explanations. however i am really trying to look for cubic spline interpolation lecture, and numerical integration using rectangle rule and adaptive quadrature, but i failed to get it. do u have them by any chance?



tineefulify (3 months ago)

thanks alot sir.



tineefulify (3 months ago)

can you post lectures about bjt transistor modeling



OHmygodXoBil3 (3 months ago)

Very clear, and you are currently helping me pass my calculus class, we need more people like you to educate the world!



alexluarizona (3 months ago)

You are very good at teaching, please upload more videos I like the way you teach, simple and clear.



ajaymanful (3 months ago)

Professor,

Can you please post the Cholesky decomposition technique for finding the transpose of a matrix?...Thanks..



nufnuh (3 months ago)

Thank you so much! I've got an A- without attending any lectures at my uni.



ajaymanful (3 months ago)

There are many people who seek money for teaching..But you didn't expect anything and teaching online for free....Hats off to you sir!!!!!!!



ajaymanful (3 months ago)

Thank you so much..Even my professor wasn't very much clear and concise as you were..Thanks a lot again..



VeemanLTTE (3 months ago)

Thanks for the videos



kearabiloe (3 months ago)

dont know what would i have done without you.....



darklordamit (3 months ago)

Greetings from Bangladesh.
Thanks a lot Sir :) the tutorials are simply outstanding.
I will also recommend these video tutorials to my classmates.



eyebeehk (3 months ago)

Extremely clear and concise. Thank you SO MUCH!



umair4x4 (4 months ago)

great teacher....ur videos are VERY helpful! ;)



VannaVolga (4 months ago)

Thanks very much for these videos - very clear presentation and great quality!



alexluarizona (4 months ago)

Thank you. We need professional like you to spread knowledge that everyone can learn. Please keep up the great wok.



2112dim (4 months ago)

People like you are the reason for studying maths as a hobby...THANK YOU!!!Greetings form Greece!



jorgealbertor (4 months ago)

you saved my life!! thank you so very much



SparkleNut91 (4 months ago)

Thank you soooooooooooooooooo much for these videos , its really helped me much ...
Really really thnx , God Bless You ..



llrnr (4 months ago)

Oh, my! Your channel, sir, is a gold mine! I wish to express my gratitude for taking the time to explain things so clearly and for the effort you put into producing such good quality recordings.

Talking about methodology: it is just what most professors I've seen constantly lack, especially the ones from the math and mechanics chairs.



dazmurphy05 (4 months ago)

You are the bees knees my friend...thanks a million



GeniusBoy88 (5 months ago)

Thank you very much for the videos you've posted. They helped me through my Numerical Analysis course & I don't feel my grade would've been what it was without your assistance. Thanks again!



tooraf (5 months ago)

thank you, you're much better than my maths teacher.

Ali:)



musicman1234567890 (5 months ago)

Your videos have been very helpful for me and my friends in studying for our difficult Numerical Methods course. Thank you very much for uploading these videos!



mikicat81 (6 months ago)

Thank you very much Professor for your contribution to the math world. Greetings from Chile!!!



msadlsuust (6 months ago)

Thanks sir! with your video about Euler's Method, I was able to understand the way it should be solved! Hope you'll be able to upload more videos in higher math subject! Thank you

-A B.S Chemical Engineering in De La Salle University Manila :)



AbhishekPanigrahi (7 months ago)

hi

first off...thanks a ton!! ...i am expecting an A in numerical methods course this semester....

i request you to kindly put up videos for "shooting method","orthogonal collocation method","adam bashford ","adam moulton" and "predictor corrector technique"

extremely grateful student :)



SnakeEater1912 (7 months ago)

Simpson rules please,. SPACE UTM student.



2112dim (7 months ago)

I have great difficulties in understanding the Muller's method for solving non-linear equations,could you please post a video?Thank you.



numericalmethodsguy (7 months ago)

maryamahmed01 - thank you. Other decompositions will not be added as they are not part of the syllabus. It takes about \$200/hour for personnel and studio rent time to do these videos, and the grant is limited to a typical numerical methods course syllabus.



maryamahmed01 (7 months ago)

Hi - you're an absolute God send! Because of you I'm hoping for an A in my numerical analysis class this semester :)

Can you also add other decompositions to your list? Like Cholesky, Schur, and Principal Decompositions? Thanks!!



jcsp101 (7 months ago)

Really helpful stuff.

But you're missing Gauss Seidel Method :(



2112dim (7 months ago)

Thank you,really helpful comment.



aimizie (7 months ago)

you helped me get an A- in numerical methods and optimisation last semester! do you do other chemical engineering courses? process controls maybe? =(



f0r3v3r88 (7 months ago)

If all professors can lecture like you, no one would fail in this world



numericalmethodsguy (7 months ago)

2112dim - you can use any software. Fortran 77 is enough. If I had to choose, I would go for C++.



2112dim (7 months ago)

Hello!My question is:What kind of software do I have to use in order to study numerical methods?Is a Fortran77 compiler enough,or do I have to use Mathematica as well?Please visit my channel,thank you!



barat3786 (7 months ago)

u'r amazing!!!!!!thankx...

from uitm,malaysia student



zkhudson (8 months ago)

Love your videos they are amazing and easy to understand. Major help in my Differential Equations class. Thanks!!!



inspiration4him1 (8 months ago)

Thanks a great bunch for your wonderful videos. You are going to be a life saver in my fast moving differential class. Much appreciated!!



3SmartyPants (8 months ago)

Because of you I now understand Bisection and Newton-Raphson Methods. Would you happen to know how to do this in Matlab (or preferrably Octave)?



PeidoVelho (8 months ago)

I've never had a lecturer that can explain concepts as clearly and quickly as you can. Thank you so much, you have really helped!!



lapitburaytitibuday (9 months ago)

Hey man! You are an awesome guy.. Can you explain to us what is a fixed point method.. I've been searching the internet on how to find roots using that method but sadly I cant understand what the texts are saying.. hope you enlighten us..



arejayzee (10 months ago)

Got an A in my modeling methods class thanks to you. THANK YOU!!



GoliathofGath (10 months ago)

Man its the most interesting and easiest course I have ever taken. At least it makes sense lol.

Thank you Sir.

—



ramjam19 (11 months ago)

Thank you very much... it's people like you who make the world a better place. God bless you!!!!



CubbeliSiken (11 months ago)

you rock! i mean numerically



crkotina (1 year ago)

wow, amazing lessons. Thank you!



pablopez (1 year ago)

I will pass my exams because of you. Thanks!



zfarah1 (1 year ago)

Thank you very much for you videos. Making my life at uni so much easier.



abraham4all (1 year ago)

hi , your lectures are absolutely useful , i was so bored with this module but now you made me love it . thank you so much .
all the best
from UK



numericalmethodsguy (1 year ago)

I am humbled by all the channel and video comments. Please spread the word and tell other students about this useful resource. My advice to learning is simple: "If you don't let a teacher know at what level you are - by asking a question, or revealing your ignorance - you will not learn or grow. You can't pretend for long, for you will eventually be found out. Admission of ignorance is often the first step in our education" - (Steven Covey , 1990)



Jray087 (1 year ago)

Thank you for your videos, you are a great lecturer.



heminapatel85 (1 year ago)

thank you so much. these videos are very helpful now only if you could help me comprehend Real Analysis I might survive my final year in college.



numericalmethodsguy (1 year ago)

The videos for introductory PDE numerical methods are slated to be videotaped in Summer 2010.



btrettel (1 year ago)

I wish you had joined YouTube last year! These videos are great and I'm suggesting them to many people. I don't know if it's planned, but anything on PDE would be very greatly appreciated.



rambocommando (1 year ago)

Hi, I just wanted to say thank you so much for your videos ... they are very clear, and extremely helpful !!!



fooshizzlemahnizzle (1 year ago)

if all the professors were like you, maybe anyone can be an engineer haha! just exaggerating haha. ur one of the best teachers here, just like donylee, who i also watch videos from to get extra reference. i'm taking up analytical and numerical methods in civil engineering 2 this summer and i might be watching your videos a lot! thanks! cheers from the philippines!



9894351513 (1 year ago)

That was really awesome, Why do books complicate something that is this simple? It was really cool and you know what? I just had my numerical exam today but even after the exam, am still watching your videos... nice job, Just so
oo-
ooooooooool... Thank you sooooooooooooooooooooo much...



juvenalmuniz (1 year ago)

Thank you very much, Sir!

Your lectures seem air bubbles in this deep numerical methods ocean that I was sinking. Now I can return to the surface and follow my classmates on an equal footing!

Best regards from Brazil :-)



Ren520 (1 year ago)

hi, can u do some examples on lagrange error bound/./?

thanks.



vristevski (1 year ago)

This is another great idea from a great USF professor. It is good that we can see more educational videos instead of junk videos on the site.



markpatrick2006 (1 year ago)

I wish you were my teacher. you explain it so well. you just saved my ass on a midterm, thanks so much!



mrslow12345 (1 year ago)

oh wow this is really good amazing very good idea thank you SO so much, although i'm guessing more is coming right because i need a "n" number of intervals for the simpsons 1/3 rule :S



tfsimon (1 year ago)

thanks a lot for these videos. they are a great help!



numericalmethodguy (1 year ago)

I am glad that you are able to use what is given on the channel for your graduate school.



atypicalcalifornian (1 year ago)

nice channel, im using a lot these types of numerical techniques from my MS studies. I think this stuff is pretty interesting!



sakuraniimi (1 year ago)

Thanks now, it became more understandable
i am waiting your videos....do u know why
because i am using these lectures to educate my students...
yes i am giving this lecture in my university, starting from this semester
and i think your site is the best...
best regards from turkey :)



numericalmethodsguy (1 year ago)

Superb advice. About 5 playlists have been made and will be made as more videos get on board.



sakuraniimi (1 year ago)

Hi,
i have a advice, it is better to understand your lectures in groups,
if you collect your videos in playlist, it is appreciated.
thanks



sakuraniimi (1 year ago)

superb channel
i really liked it, please keep going and uploading
your explanations are very easy to understand
thanks

Euler's Method: Example Comment

Total video views: 23,157

June 9, 2010

All Comments (41)

[gntinos](#)

3 weeks ago

Thanks a lot for the time spent to create that helpful tutorial!

[mohkam03](#)

1 month ago

how do i get h is the question only states there are two steps of equal size?

[numericalmethodsguy](#)

1 month ago

[@mohkam03](#) The user chooses h. It is chosen to be same for all steps to keep the programming simple and scientific, unless you are using adaptive methods. So if the initial value of y is give at $x_b=0$ and you want to find y at $x_f=5$, you need to choose h so that (x_f-x_b) is divisible by h. Smaller the value of h, smaller will be the error in the final result.

[mohkam03](#)

1 month ago

[@numericalmethodsguy](#) I am still confused... I gives me $f(1)=-2$. $Dy/Dx=x-y-1$. It wants me to solve for $F(1.4)$ using Euler's method, starting at $x=1$ while using two steps of equal size... I used .4 for my n and I got -1.52, but the answer is -1.24...

[numericalmethodsguy](#)

1 month ago

[@mohkam03](#) Give me the complete problem statement as given.

[mohkam03](#)

1 month ago

[@numericalmethodsguy](#) i figured it out! thank you for the help!

[Raguvian](#)

1 month ago

Thanks a lot, your explanation was much easier to understand than my professor's explanation of this method.

[bournefury](#)

1 month ago

Amazing videos sir! This just saved me on a calc test!

-
- [gorski1986](#) where does he get $x(0) = 0$ from?
1 month ago
- [numericalmethodsguy](#) [@gorski1986](#) The initial value of y is given at $x=0$. So x subscript $0=0$.
1 month ago
- [Monatee](#) thanks!
2 months ago
- [parthibangemini1985](#) awesome teaching
2 months ago
- [ralex321](#) Thanks for reteaching me Euler's Method. This thing always gets me.
3 months ago
- [Coutureprincess0303](#) How would I find the true value?
4 months ago
- [numericalmethodsguy](#) Go to the playlist on the numericalmethodsguy channel, and see the primer on ODEs. See the first video.
4 months ago
- [markov2b1](#) Great job. Excellent teaching. The only thing i want to mention, you need to slow down when you say "particular". You kind of say it really fast, like purrrticular. Its pronounced kind of like POR-TICULAR. The OR sounds like Hour , ow . But its sort of in between
4 months ago
- [numericalmethodsguy](#) Thanks. Next time I will be "particular" about saying particular.
4 months ago

[hotbaonguyen92](#)

6 months ago

Thank you this lesson is easier than what my Ap calculus book says

[bsanghera05](#)

6 months ago

after so many tries of trying to learn this so many ppl trying to teach me this video has finally made it clearly explained follow the steps and you got your answer thank you sooo much =D

[saab93secv](#)

6 months ago

Thank you so much! I knew that Euler's Method was simple, but it is rare to see it explained well.

[nitaiwhelan](#)

7 months ago

thats life made simple.....
keep uploading lectures their brilliant...very clear and understandable.

[AbhishekPanigrahi](#)

7 months ago

yo!!.... wonderful easy to understand presentations....

life seems a whole lot simpler with these lectures!!....if only my professor's lectures were half as interesting....

anyways thanx a lot ...keep uploading more videos
...lukiing forward 2 it

[lovelandia1](#)

7 months ago

You helped me a lot , now I can understand Euler's method. BUt there is something I don't understand here. what if you are given something like this: $x'-x^2=1$ where $x(0)=1$ and you are asked to to solve it numerically on interval , let's say $[0,0.6]$. How can I use Eulers' method to solve this numerically?

[lovelandia1](#)
7 months ago

All your examples none of them which asked to solve on specific intervals. So, I was asking myself if like where you $f(y_i, x_i)$ that in this case can then be $f(0, 0.6) = x^2 + 1$
I just don't understand well

anyone to help please?

[dekechemist](#)
7 months ago

Comment removed

[supadawg1989](#)
8 months ago

thank you for this! This really helped me understand this!

[Mainichifuafua](#)
8 months ago 

Thank you Dr. Kaw. This was of great help.

No one is more cherished in this world than someone who lightens the burden of another. Thank you.

[daringredevil4life](#)
8 months ago

Very helpful presentation. Kindly carry on the good work!!!

[akensim](#)
9 months ago 

Dr. Kaw, thank you very much for producing these mini lectures. They are extremely useful and of immense value to all of us.

[ZwolfZki](#)
11 months ago 

Nice clear presentation...

[numericalmethodsguy](#)
11 months ago

What do you mean that the method is not the same. Euler's method cannot be different from one person to another. Are you using the modified Euler's method?

[wizardroolz](#)
11 months ago

hey kaw!..ur method and mine isn't the same bt could
gt the same ans...nice job!

[numericalmethodsguy](#)
11 months ago

What made you think that my name is Dr. Kumar. If this
is a joke, I like it; if not, my name is Dr. Kaw.

[cokecamilo](#)
11 months ago

It was a joke lol...

but seriously speaking: this was very helpful.

[cokecamilo](#)
11 months ago

Thanks for the help Dr. Kumar!

[999madcows](#)
1 year ago

same, I have my AP Calc BC test today. Saved me!

[yellowspottedtoad](#)
1 year ago 4 👍

You rock! You've just saved me from totally failing

[Bobward](#)
1 year ago

thanks a bunch!

[blkscreen15](#)
1 year ago

thanks for the help

[servos1988](#)
1 year ago

04:03:
 $5+(1)*2=8$

WTF?! :)

[numericalmethodsguy](#) It should be $5+(1)*3=8$. Thanks for pointing it out. The 2
1 year ago is a typo but the answer is correct as $h=3$. But use of WTF is not necessary to convey your sentiment. I will add an annotation to the video.

[servos1988](#) No problem. English isn't my motherlanguage so I
1 year ago appologize for any inappropriate language.

Yea the answer is correct anyways.

[numericalmethodsguy](#) The formula would not change. You would use $h=-1.5$
1 year ago for two steps to get to $y(-3.0)$. The only restriction is that the ODE needs to be valid for $x \geq -3$.

[CHARLIEGTG](#) how would you do instead of $y(3)$.. you want $y(-3)$????
1 year ago how would the formula be???

Runge Kutta 4th Order Method: Example Part 1 of 2

Total Video Views: 9,953

June 9, 2010

All Comments (17)

[kralle333](#)

1 month ago

Going to a test today

[homedogdigity](#)

2 months ago

$k_3 = -.3181^*$

[louislryan](#)

2 months ago

Great links. I've been covering numerical methods this semester and this has been my number one source of information. If you still have the labs, Adam Bashforth's method could be simplified!

Great job USF

[presidentevil](#)

2 months ago

can't you use the linear ODE equation for this?

Can you solve any nonlinear ODE with this?

[numericalmethodsguy](#)

2 months ago

You can solve any linear or nonlinear ODE of the form $dy/dx=f(x,y)$ with Runge-Kutta methods.

[footbagverde](#)

3 months ago

thanks so much! very good video you explain much better than my professor!!

[bardiche1989](#)

4 months ago

You Sir are PRO !

[LogInForPaper](#)

4 months ago

So my lecturer goes to us today, "So you should all be aware of the Runge-Kutta and Euler methods". The whole class (first years) just looked at each other with baffled faces. Thank you for uploading this, you have saved my Mathematical Physics GPA!!

[numericalmethodsguy](#) Please tell all your classmates about the website.
4 months ago

[LogInForPaper](#) [@numericalmethodsguy](#)
4 months ago Yeah I will, already posted this on facebook.

[expert425](#) really helpful video. thanks
5 months ago

[7i7Abil](#) you are very helpful and i appreciate the time you put
6 months ago into this

[pikachu7](#) you are my hero
7 months ago

[lovepandas411](#) OMG!!! idk what this is but Runge is my last name!!!
8 months ago and he said in right!!

[adhemar4444](#) Really helpful thanks so much
10 months ago

[numericalmethodsguy](#) The correction for k3 has been posted
1 year ago

[KooLRajK](#) *Comment removed*
1 year ago

Newton-Raphson Method: Example

Total Views: 9,286

June 9, 2010

All Comments (23)

[AshimHybrid07](#)

1 month ago

sir, can you help me in this question..... i m understand how to solve it.....i solved other questions of N-R method..... but now facing prob in this question. $x^3-x-1=0$ -four decimal places

[numericalmethodsguy](#)

1 month ago

[@AshimHybrid07](#) Well take the derivative of x^3-x-1 , that is $3x^2-1$. Now use an initial guess like $x_0=2$ or so in the setup and you are on the way. When the fourth decimal place does not change in the iterations, you have achieved your result. The answer is 1.3247. The eqn has two complex roots too, but those cannot be found by NR method. For that you need to use methods such as Muller's method.

[fizXgirl314](#)

1 month ago

I've also heard that you can use the Newton-Raphson method combined with the shooting method in order to make your next initial condition guess. Do you have any good resources on how this can be done? I'm attempting it on an assignment. Your lectures are great!

[tahirsaleem11](#)

2 months ago

is there necessary to take second derivative in Newton-Raphson method and also assume first function to another function let suppose $f(x)$ to $g(x)$ and then take first and second derivative of this function kindly help me

[numericalmethodsguy](#)

2 months ago

One only takes first derivative in Newton-Raphson method. There are modifications proposed to the Newton-Raphson method when the equation has repeated roots, which involve taking derivative of $f(x)/f'(x)$.

sahmed28
3 months ago

You are an awesome professor!
whats your background? are u indian or pakistani

thanks once more:)

numericalmethodsguy
3 months ago

@sahmed28 Such questions need not be asked. I am a US citizen. Do not let my color, accent or nationality distract you from learning!

AkiThePirate
2 months ago

I would like to think he was asking only out of curiosity.

And I'll agree with him, very informative.
Thanks.

jamescboyd
1 month ago

@numericalmethodsguy AMERICA! YEAH YEAH!

henrietagib
5 months ago

can anyone tell me wer he got the $x_0=3.0$???

numericalmethodsguy
5 months ago


That is an initial guess to get the procedure started. To make an estimate of the initial guess, you may look at the physics of the problem. For that, read by going to numericalmethods(dot)eng(dot)usf(dot)edu, click on Newton Raphson Method and see the textbook chapter example.

SnakeEater1912
7 months ago

Thank you for making such a good video. You are much better than my lecturer, I wish I can download your video so that I can watch it over and over again without log in to youtube. Do you have exercises that I can try?

[numericalmethodsguy](#) [@SnakeEater1912](#) The exercises are given at the numerical methods website for which the URL is at the numericalmethodsguy channel. Go to keyword, and then to multiple-choice.
1 month ago

[loernlt](#)
1 year ago
Excellent video. Have you done any videos about function iteration?


[sneakybadger](#)
1 year ago 2 
Thankyou for making this video
It has helped me!

[mikeymusician](#)
1 year ago
i dont get 0.009% for the last iteration.
i get 0.037%. Maybe i'm calculating wrongly

[numericalmethodsguy](#) You are right. The number 0.009% is obtained using more significant digits in the calculations of the roots.
1 year ago

[lblake58](#)
1 year ago
Comment removed

[konmak](#)
1 year ago
great instruction. thank you!!

[coswominn](#)
1 year ago 2 
wow. ur an awesome teacher.

[elgourmetdotcom](#)
1 year ago
I've got one question only! Why did you start with 3.0? I mean, why did you choose that value in particular?

[numericalmethodsguy](#) I started with 3.0 as an initial guess just to solve the problem. You could start with any guess you want. The root may diverge or converge. In many physical problems, the physics of the problem may help you with a good initial guess.
1 year ago

[numericalmethodsguy](#) Example: To find to what depth a ball is floating in water results in a cubic equation. In this case we know that the depth has to be between zero and the value of the diameter of the ball. So choosing half the diameter is a good guess. Do a Google search on STEM numerical methods. Go to the first site that shows up. Click on Keyword. Go to Newton Raphson Method. Click on Textbook notes to see the example.
1 year ago

[happysoursop](#) thanks for uploading this video... u rescue my maths
1 year ago

[dias165](#) cheers
1 year ago

[mwsc](#) The Best Newton-Raphson method example that I have ever seen. Thank you very much.
1 year ago

LU Decomposition Method: Decomposing a Matrix Example: Part 1 of 2

Total Video Views: 9,235

June 9, 2010

All Comments (4)

[DocJ32290](#)

3 months ago

LMFAO! Very helpful, and entertaining

[jiminikiz](#)

8 months ago

reall well put together lecture on LUD

[zildjian](#)

11 months ago

Thank you for that really nice vid! ^^

Greetings from spain

[8soso8](#)

1 year ago

i have final exam tomorrow thnx alot that help me alot

...

Euler's Method: Derivation

Total Video Views: 7,048

June 9, 2010

All Comments (9)

[yadun1](#)

1 month ago

Do you have a video for the backward euler integration scheme?

[betul2bosan](#)

1 month ago

just love the ending ...


END

[BluCosmos](#)

3 months ago


yes great explanation

[ctw005](#)

5 months ago 4 

amazing teacher

[yellowspottedtoad](#)

1 year ago 2 


Wow! He is awesome! Very clear when explaining, and his writing is nice :D

[vip1789](#)

1 year ago


Awesome! - Better than my university lecturer!

[blkscreen15](#)

1 year ago 5 

thanks for explaining $f(x,y)$ and sometime when you are confused about the smallest thing, its hard to understand other stuff, so this is great and very helpful video.

[Ren520](#)

1 year ago 2 

thankyou!!! that makes things alot clearer!! =]

[persianqu33n](#)

1 year ago 2 

that was cool!thanks

Bisection Method: Example

Total Video Views: 6,878

June 9, 2010

All Comments (13)

[tronulu](#)

2 hours ago

thanks

[ManuelCollinsBarud](#)

1 week ago

Excellent video! Thanks from Mexico!

[kienhsin](#)

2 weeks ago

nice! thanks for this vid

[divinenuker](#)

1 month ago

THANKS! I don't understand why the book can't make it this CLEAR! Why do they have to make it SO DAM Complicated even when your just being introduced to the concept! Jeez

I'm glad I have this channel as a phenomenal study tool!

Thanks Professor.

If you have time / resources, please do a section on Finite Element Method!

[rizwayne](#)

2 months ago


thank you so much!!! u were jsut phenomenal...grt lecture!!

[darklordamit](#)

3 months ago

thanks a lot :) a very good and understandable tutorial :)

[Animeplayer](#)

7 months ago 7 

Thank You! This is even more clearer and understandable than the book and the professor I have.

2112dim
7 months ago 3 

Very good,just started today studying such numerical methods.

sultans90
7 months ago

very good!

thanks

kabbie101
7 months ago

You are a very good teacher, very thorough

3SmartyPants
8 months ago

This has been flagged as spam [show](#)

3SmartyPants
8 months ago

You are an awesome teacher!! I totally now understand the Bisection Method (with a few minor questions for clarification).

lapitburaytitibuday
9 months ago

dude! do you have an example on fixed iteration method? I really needed it! I'll put five stars if you explained it well

Floating Point Representation: Example

Total Video Views: 6,567

June 9, 2010

All Comments (18)

[RajeevD](#)

4 weeks ago

Thank you

[gatnu3010](#)

1 month ago

Thank you for this video and the base conversion, it was really helpful.

[ibo777tube](#)

3 months ago

Thank you very much. It was very helpful to me but I thing there is an mistake in the last Representation of the floting point

[numericalmethodsguy](#)

3 months ago

Can you point the mistake to me?

[RuyABC](#)

3 months ago

Good materia. Its essential in computer science.

The Brazil express gratitude.

[videos12344444444](#)

4 months ago

confuse oO. Im really dont understand the base of conversion on float point oO...

[Terry1212](#)

5 months ago

Thanks for the video. Btw, the dog ate my homework.
:D

[mosgba](#)

7 months ago

i got the 13 but not the 0.9 plz help me

- [blitz0623](#)
6 months ago
- 0.9:
 $0.9 \times 2 = 1.8$. Use the 1. (1)
 $0.8 \times 2 = 1.6$. Use the 1. (11)
 $0.6 \times 2 = 1.2$. Use the 1. (111)
 $0.2 \times 2 = 0.4$. Use the 0. (1110)
 $0.4 \times 2 = 0.8$. Use the 0. (11100)
 $0.8 \times 2 = 1.6$. back to 2nd operation. So the binary representation of 0.9 is:
11100 1100 1100 1100 etc. We just need the important bits, 11100.
- [mosgba](#)
7 months ago
- the actual reason am watching he put it to home work.
oh no!
- [mosgba](#)
6 months ago
- thanx for helping i got it
- [robertgeorge24](#)
7 months ago
- Comment removed*
- [TheDesiretolearn](#)
8 months ago
- In binary representation 9 is 1001. Isn't it?
- [numericalmethodsguy](#)
8 months ago
- It is the respresentation of 0.9. See this video
[youtube\(dot\)com/watch?v=96MJVzVKoIE](https://www.youtube.com/watch?v=96MJVzVKoIE)
- [LoboLoko007](#)
7 months ago
- I have just been studying binary and hexadecimals and I can surly say that... yes
1001(binary) is the equibalent of 9 (in decimals)
- [Akillarian](#)
9 months ago
- Thanks for the video. It's very helpful.

[Valefarous](#)
11 months ago

Thank you for this video! I've been struggling through a very dense chapter on fp representation that used a lot of heavy language from abstract algebra; this made it much clearer to me.)

[naco1020](#)
1 year ago

thank for the correction... :-)

[amightyo](#)
1 year ago

the mantissa is 101.
Thanks for the info...very useful.

[numericalmethodsguy](#)
1 year ago

Thank you for the correction. It has been annotated on the video. I hope to replace this part of the video later by re-taping it.

LU Decomposition Method: Decomposing a Matrix Example: Part 2 of 2

Total Video Views: 5,773

June 9, 2010

All Comments (19)

[shiringham](#)
3 weeks ago

You ROCK

[eajustin06](#)
1 month ago

word my finals in 3 hours hah ima gonna
passsssssssssssssssssssssssssssss
wooooooooooordddddd

[fusion2x](#)
1 month ago

awesome, clearest lecture about this ever!

[iwashungry](#)
1 month ago

Very helpful!

[SoumyaGangula](#)
1 month ago

jus superb..... thanks for uploading it.....

[Crayfish1010](#)
2 months ago

outstanding!!!

[phowaiwin](#)
2 months ago

Awesome! I very much appreciate him. This is crystal clear.

[rtalbert235](#)
3 months ago

Thanks for this very clear exposition. I'll be sharing this with my own linear algebra students.

[numericalmethodsguy](#)
3 months ago

[@rtalbert235](#) Please email me the university you are taking the course at!

[divinenuker](#)
3 months ago

AWESOME!

- [Peeanorun](#)
3 months ago
awesome! he did such an awesome job explaining LU Decomp. Thanks!
- [barryon](#)
4 months ago
Brilliant! I'm panicing and i have to say that i have this nailed now because of this vid!!



Brilliant teacher.
- [fiwel](#)
7 months ago
Thank you man. Very good video. Maybe I'll pass this exam after all? :)
- [yunjizzle](#)
7 months ago
very clear
- [jiminikiz](#)
8 months ago
really well presented, awesome instructional video
- [zsiuramCie](#)
9 months ago
Great teacher. Thanks for this vid.
- [Tordre](#)
10 months ago
Thank you i have my exam in 2 hours this is a great video.
- [ramjam19](#)
11 months ago
hands down, you are the best!!! Thank you very much.
- [pangolish](#)
1 year ago
great! helped me a lot

Direct Method of Interpolation: Linear Interpolation

Total Video Views: 5,661

June 9, 2010

All Comments (9)

- [mgillicuty007](#)
1 month ago
- I am learning more in these videos than in my actual numerical methods class at UCSD.
- [chippy89](#)
3 months ago
- thank you
- [SammerX](#)
3 months ago
- Thank you! Big help for an XRD lab that I am working on.
- [GabiHeinz](#)
4 months ago
- Thx a lot :))
- [theonlyrealshark](#)
5 months ago
- thanks! i can finally interpolate tables
- [ericchengcheng](#)
7 months ago
- Is this Thai made?
- [numericalmethodsguy](#)
7 months ago
- Made in the USA - a rarity nowadays!
University of South Florida.
- [lsonux](#)
10 months ago 2 
- Excellent instruction, but I'm sure the drop outs might have stuck around if you helped them work out this particular set of matrices? Nah! XD
- This takes me back to my college days, ain't like riding a bike though.. gotta keep working at it to stay a master for sure.
- [alimn2222](#)
1 year ago 4 
- Thank you... this is very helpful

Secant Method Example

Total Video Views: 5,053

June 9, 2010

All Comments (17)

[maroon5rule](#)

1 month ago

Thanks for uploading this, I fully understand it now, cheers!

[fizXgirl314](#)

1 month ago

OH YEAH!! this helped me to find the next guess for use in the shooting method... LOVED IT!

[Sn1perBH](#)

2 months ago

thx

[umutert](#)

3 months ago

cool stuff!

[unknownkingdom](#)

4 months ago

These are very useful videos. Thank you for posting.

[MathHrxC](#)

6 months ago

[show](#)

[kabbie101](#)

7 months ago

Thank you, I understand it now! and i thot it was hard

[himildesai](#)

8 months ago

thanks dude...you saved my life...awesome video...I now understand Secant method so perfectly.

[lapitburaytitibuday](#)

9 months ago

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[lapitburaytitibuday](#)

9 months ago

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[lapitburaytitibuday](#)

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9 months ago

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9 months ago

[lapitburaytitibuday](#) *This has been flagged as spam* [show](#)
9 months ago

[lapitburaytitibuday](#) *This has been flagged as spam* [show](#)
9 months ago

[lapitburaytitibuday](#) Fixed point method pls.....
9 months ago

[numericalmethodsguy](#) I do not have access to the studio this semester.
9 months ago

[lapitburaytitibuday](#) dude! do yo have an example on fixed point iteration
9 months ago method? I'm looking around the internet and nothing
gives me the exact meaning of it...