Mathematical methods of classical mechanics solutions

Spring Quarter 2018 Mo We Fr: 10:30-11:20 at 381U Instructor - Professor Yakov Eliashberg Office 383S Opening hours: MoWe 2:15-3:30 pm COURSE Assistant - Francois-Simon Fauteux-Chapleau Office 381M Opening Hours: Fr 1:30 - 2:30 SYLLABUS The final exam (due on Monday, June 4) solution for the final textbook: Additional text: V. I am Arnold, geometric method in the theory of ordinary different equations, No. 2 , Springer 1988 V. I. Arnold, mathematical methods of classical mechanics, Issue 2, Springer 177 Online Text: More chapters, differences, online text formats will be sometimes updated and extended classes to use the Piazza system: www.piazza.com Piazza is a question-and-answer platform specifically designed to get you quick answers. You can use Piazza to ask questions as well as answer questions of your classmates. The instructor and TA will follow all the discussions in Piazza, homework will be received every two weeks, posted online on Wednesday and compiled in wednesday classes in one week. However, I should be familiar with the subjects found in Chapter 3,4,7,8 before the next semester, so that I can participate in some courses. I will attach a related list of subjects found in the table of contents through the image below. The incharge professor claims that he studied subjects from this book and did not know the references better. Claiming that he thinks chapters 3 and 4 are very clear, which is not my case), as this I would be happy for literary references. What can I do as a below-level math student? Are there any more comprehensive and less difficult-to-read alternatives? Mathematical rigour as well, $\endgroup$ friends and I'm going through Vladimir Arnold's mathematical methods of classical mechanics, but I think the lack of background in pure mathematics/evidence is seriously hindering my ability to do any problems in the first chapter. [itex]\textbf{v}[/itex] or [itex]t[/itex] and by example 3 vector [itex]\textbf{F}[/itex] is not related to rotation. Homework Equations Example 1, 2 and 3 refers to the fact that Newton's equation must not change regarding the change of Galilee 1 is translated through time 2 is to translate through space and increase the constant speed duration, and 3 is rotating in space. I'm not sure what the book wants from me anymore. I can write down equations for three examples, but that doesn't seem too important. Any help would be appreciated, especially if someone could point me to resources for learning how to make mathematical evidence, especially in the context of physics. Answers and replies, thanks jedishrfu, but I am not familiar with knowing when to use evidence by conflict. I'm a graduate student in physics. I've already passed Goldstein, etc., so I'm familiar with Newton's law. What I'm not familiar with is how to prove things, if you give me a system, I can find lagrangian and solve any problems, but if you ask me how to prove something is true about the system in general, I usually lose. Just knowing this solution will not help me solve the problem anyway unless I know the general steps for solving this type of problem. My efforts in this issue are as follows: by invariance about the translations we have [tex]\mathbf{a}_i=f_i(\mathbf{x}_j-\mathbf{x}_k, \mathbf{v}_j-\mathbf{v}_k)[/tex] and its potential can only depend on the distance between particles. However, since there is only one particle, there is no one particle, so [itex], f_i[/itex] must be fixed, so I guess we should use invasive wings. But it seems to me that any constant vector will not change under rotation. In addition, it is clear that this type of answer is not. It would be useful if the author made some examples, but obviously the reader should be familiar with this type of procedure. I wonder which book will help? Page 1 Page 2 Page 1 Page 2 2