As the Labor Day Holiday recedes into the past, schools all around the US are beginning again – and this time in person. Despite the issues associated with the new normal of the pandemic, it is gratifying that many students will be experiencing in-person learning again. Nothing replaces the classroom setting where a good teacher (sadly a vanishing breed) can read and react to the non-verbals students are continuously sending in response to the material they are being taught. An eye roll here or a puzzled look there do a lot more to reveal the inner state of mind during a lesson. One-to-one interactions can never be fully mimicked no matter how good distance learning techniques become. Hopefully when the pandemic also recedes into the past we will all have a better appreciation for the harm visted on students by distance learning.

Now onto the columns.

[Aristotle2Digital](http://aristotle2digital.blogwyrm.com/?p=1231) begins a new series of blogs devoted to the Monte Carlo method. While it might be surprising to some, there is an amazing amount of structure that can be coaxed stochastic processes provided that the randomness is introduced in an intelligent way into deterministic systems. It is this mix of chaos and structure that makes the Monte Carlo methods so useful and so interesting.

Even the most casual of observers of economic news can see that the powers that be are worried about inflation. A simple search on the financial websites unearths many articles fretting over the degree to which prices have risen in the past couple quarters. [CommonCents](http://commoncents.blogwyrm.com/?p=902) explores the macroeconomic roots of these fears by looking back at the stagflation of the 1970s and explains why everyone should be keeping a watchful eye on just what the Federal Reserve does.

Curvilinear coordinates are some of the most difficult concepts a student in engineering and science must wrestle with. Understanding how to adapt the laws of physics to cylindrical or spherical geometry is essential since nature tends to favor these shapes. And yet, most practitioners simply look up the formulae for the divergence, the curl, the material derivative, and the Laplacian without a solid understanding as to why the terms have their particular form. [UnderTheHood](http://underthehood.blogwyrm.com/?p=1604) presents, in two acts, a ‘mantra’, useful to new and experienced folk alike, that explains the origins of the differences.

Enjoy!