Article Submission Guidelines

I. Overview

This document summarizes the guidelines for submitting articles to the online Particle In Cell scientific computing blog located at **http://www.particleincell.com/blog**. The goal of the blog is to make available to the public articles on various scientific computing methods in a detail sufficient to allow the reader to implement the method in his or her own codes. In other words, we are hoping to fill the gap that exists between Wikipedia and academic journals. While Wikipedia articles are a great starting point for learning about a method, they generally do not provide detail sufficient to implement the method. On the other hand, journal publications already assume an existing familiarity with the method and instead concentrate on results.

II. Topics

We consider a wide range of topics as long as the article pertains to computer programming, equation solving, mesh generation, data analysis, or fluid and plasma dynamics. Some examples include:

- Implementation of a simple Riemann Solver
- MHD model for plasma dynamics
- Modeling plasmas with fluid particles
- Gas modeling with Direct Simulation Monte Carlo Methods (DSMC)
- Data visualization with tools such as VTK
- Modeling of plasma instabilities
- Plasma/wall interface effects
- Optimization of parallel codes
- Multiscale methods for fluid dynamics
- Interesting plasma / fluid simulation results
- And so on...

III. Layout

The article should be submitted as a Word, Latex or an HTML document. The Particle In Cell blog utilizes the Wordpress platform. WP-Latex plugin is used to render equations. Your text will be formatted by our staff to match the general layout of the site. The article should present in sufficient detail the overview of the method, details of the numerical implementation, and where appropriate, also include a sample code as an attachment. Please include links and references to cited works. Images and animations are strongly encouraged.

IV. Submission Process

To submit an article, please email the **document**, a short **biography**, and any **attachments** to lubos.brieda@particleincell.com. Your document will be reviewed by our consulting team, and if approved, you will be emailed a link to an online preview where you will have a chance to correct any outstanding issues prior to the online publication.

Thank you for your interest in publishing in the online Particle in Cell blog!