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INVOICE

Recipient			
Electro Magnetic Applications Inc.	143 Union Blvd #900, Lakewood, CO, 80228, United States of America	Timothy tim@ema3d.com	McDonald

Electronic payment information   Wells Fargo - Account number 8094382838 - Routing number 102000076

Invoice Number	Date	Payment Due	Project Name
AAA202411200	November 20, 2024	November 30, 2024	Charge Plus Optimization

ITEM	TIME [min]	RATE [$/minute]	SUBTOTAL
October			
EMA3D-1418			
Study of the interactions in reflection, sheath and repartitions. The complexity of the decision tree is substantial. It will need to be addressed carefully before getting any gains.	180	5	$900.00
EMA3D-1418			
Got a better understanding of the decision tree. There are definitely simplifications to be done but still need a deeper study. Shifting to ScatterCharge for now.	180	5	$900.00
November			
EMA3D-1418			
Had issues with SonicWall VPN, called Synagex and they couldn't find a solution unfortunately. Problem continued during the weekend and solved itself somehow on Monday Nov 4.	60	5	$300.00
EMA3D-1418			
20% speedup achieved for `PIC::UpdateNew(int)` by optimizing `PIC::ScatterCharge(Uint)` and `TE4SubStruct::Values(vector <double>)`. Reported to Bryon in JIRA comment.	240	5	$1,200.00
EMA3D-1418			
New timings and reporting back to Bryon on a JIRA comment.	60	5	$300.00
EMA3D-1418			
Sub-timing of reflections required dedicated timing routine not to affect the overall time too much. Results show in Reflections, **43%** is spent in `PIC::CurrentElement(vector,vector,Uint)` and **27%** in `PIC::Reflections(Uint,double)`	60	5	$300.00
		Total	$3,900.00