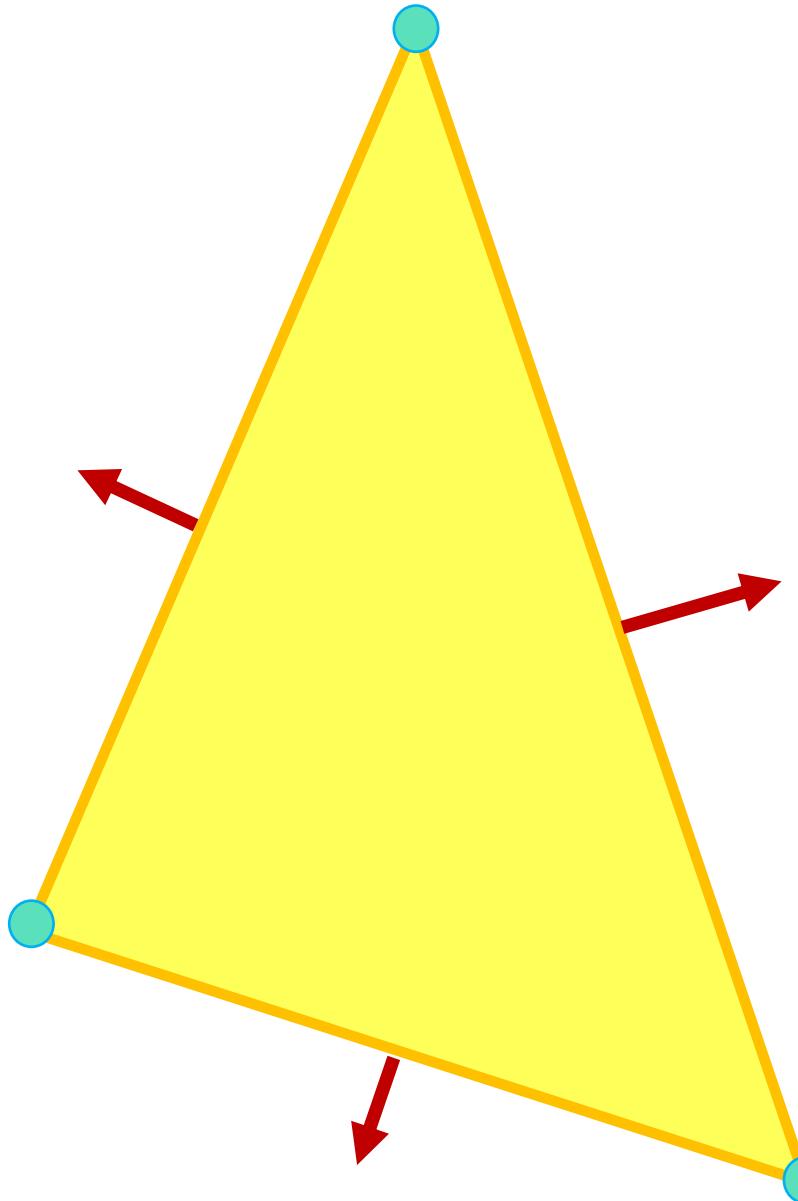
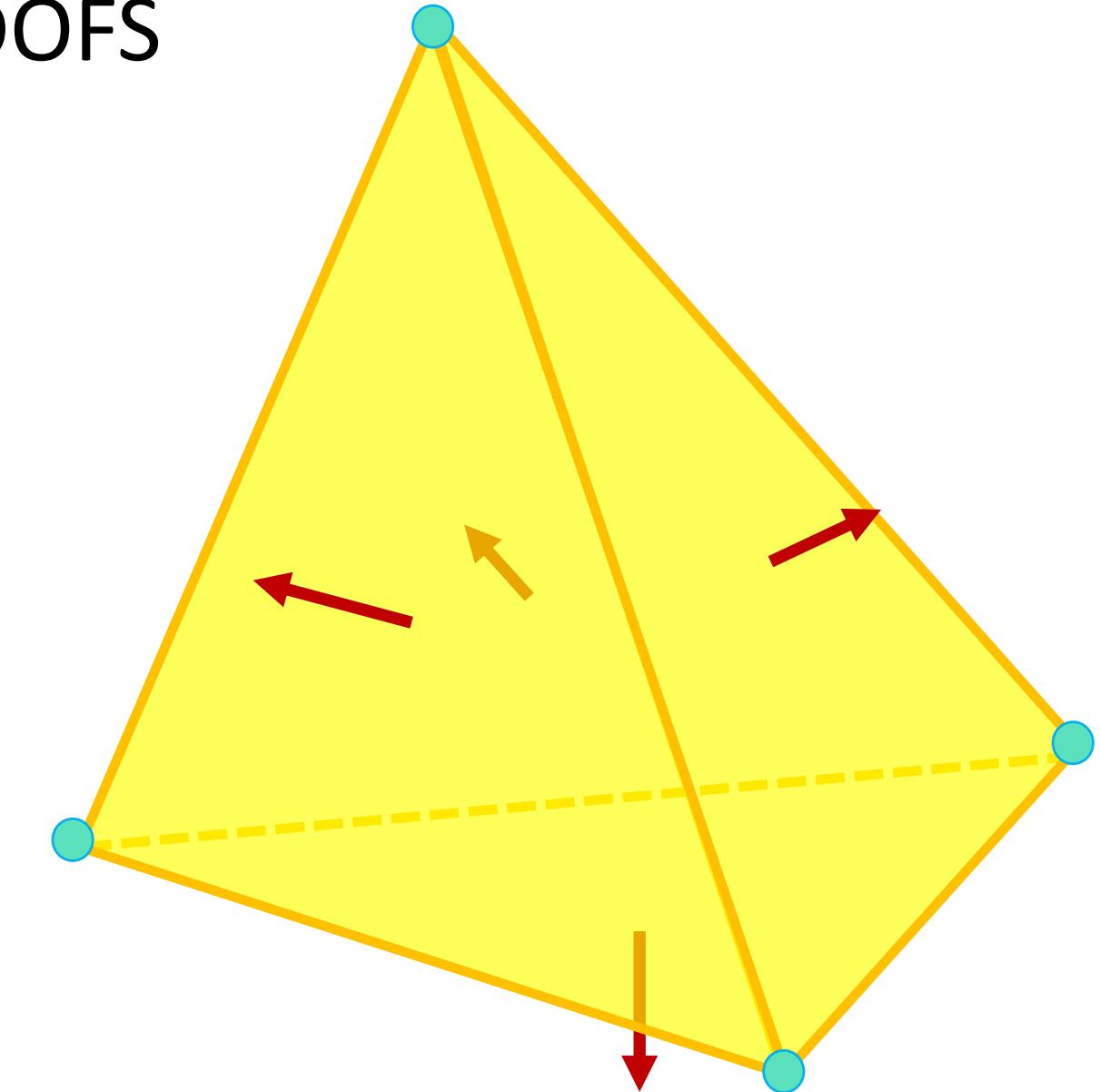


2D



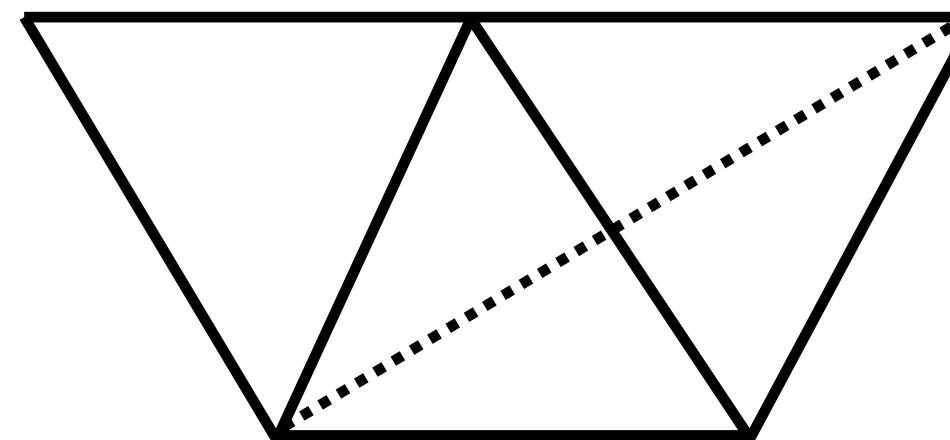
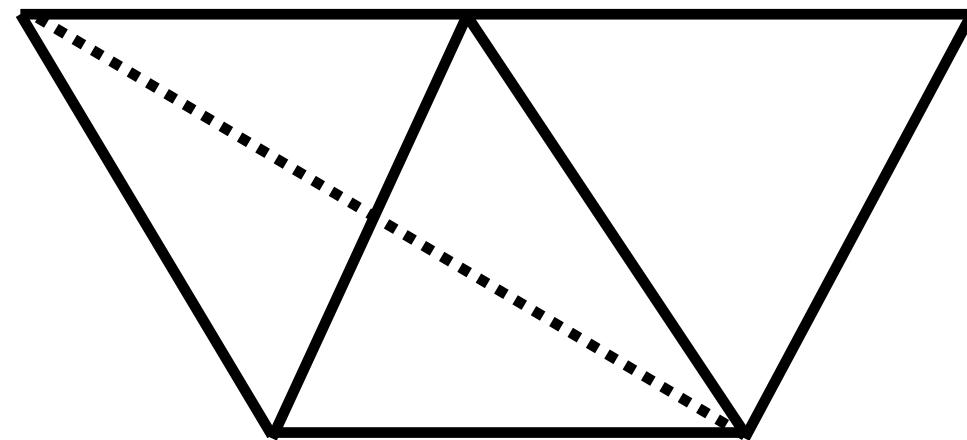
● P^1 DOFS
→ RT_0 DOFS

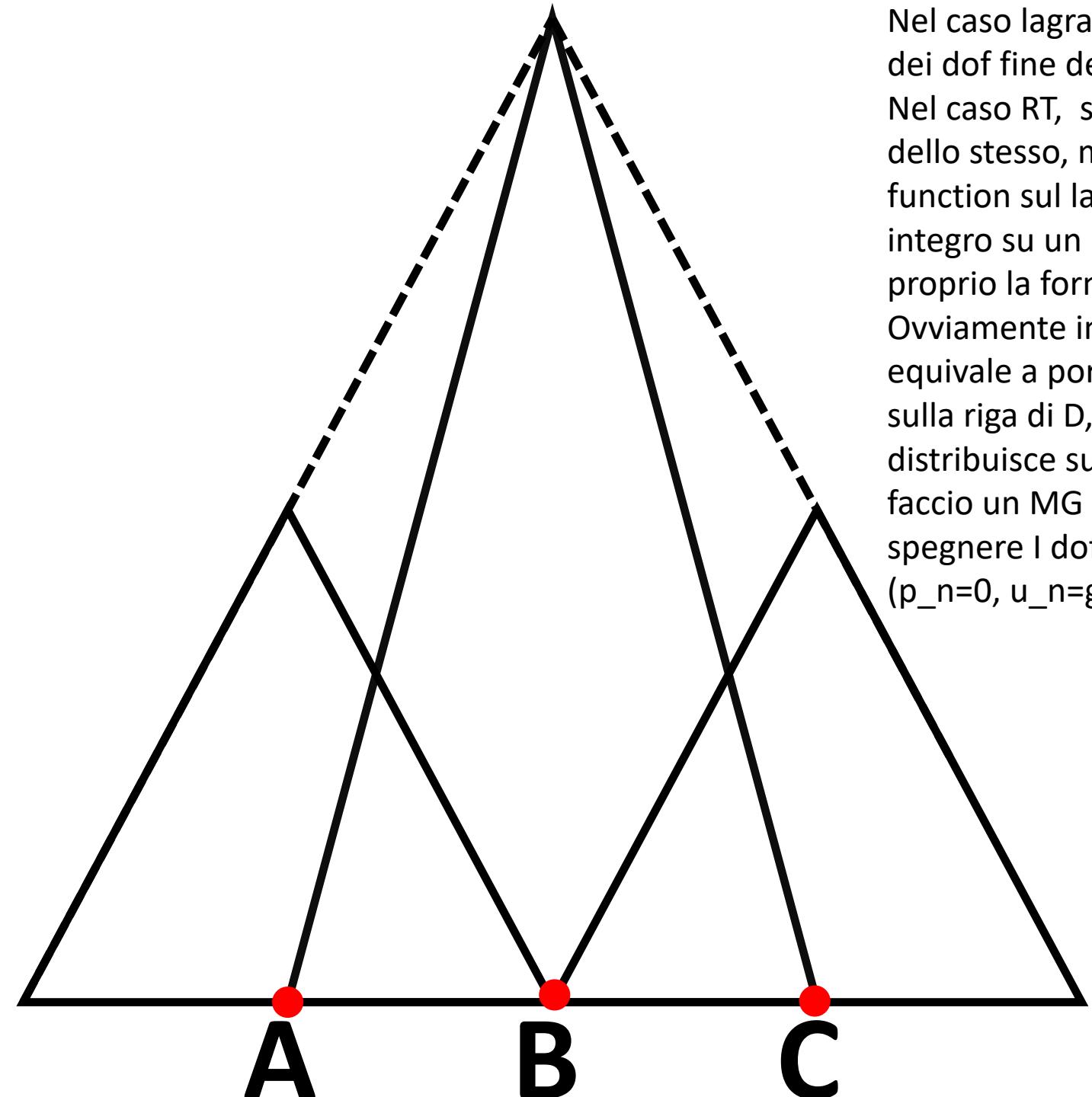
3D



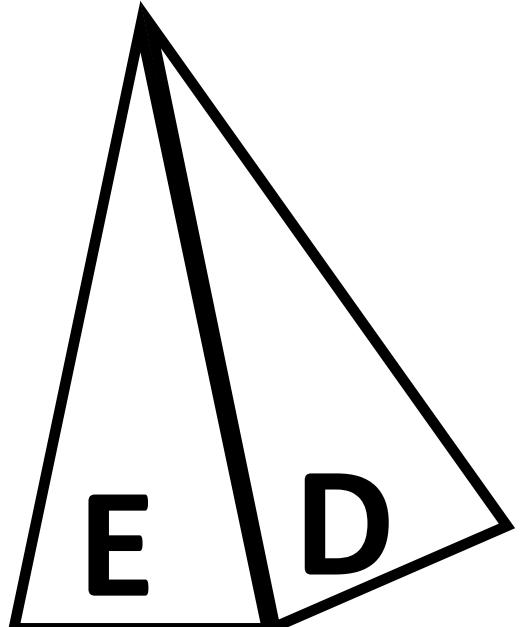
Non si capisce moltissimo sta roba. Se io ho una mesh coarse e raffino, poi so fare nested meshes.

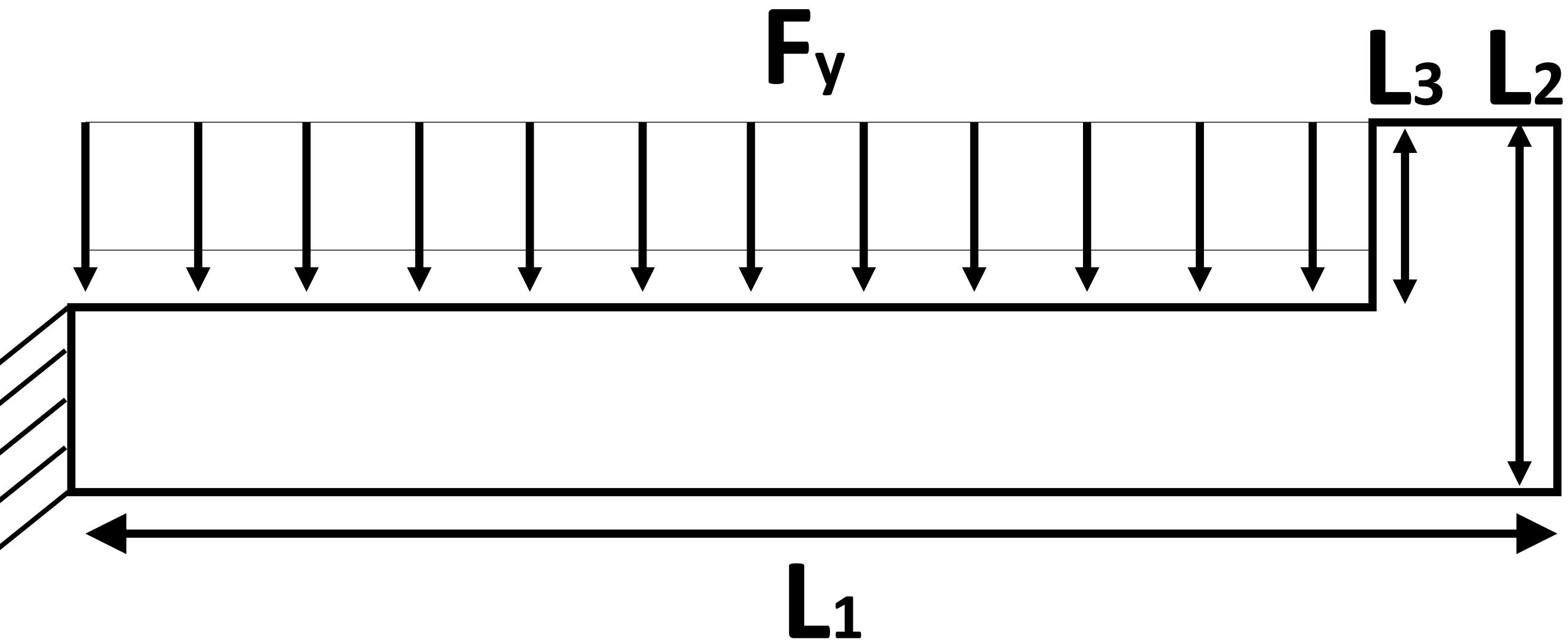
Ma ad esempio con un cerchio, la mia vera mesh e' quella fine. Quindi come cazzo faccio a considerare I coarse space senza mesh? Posso trattare il boundary separato, ma comunque se ho un due level con una mesh fine del genere (lati su GammaC in numero dispari0, non si capisce quale dei lati coarse sia uguale a quello fine.

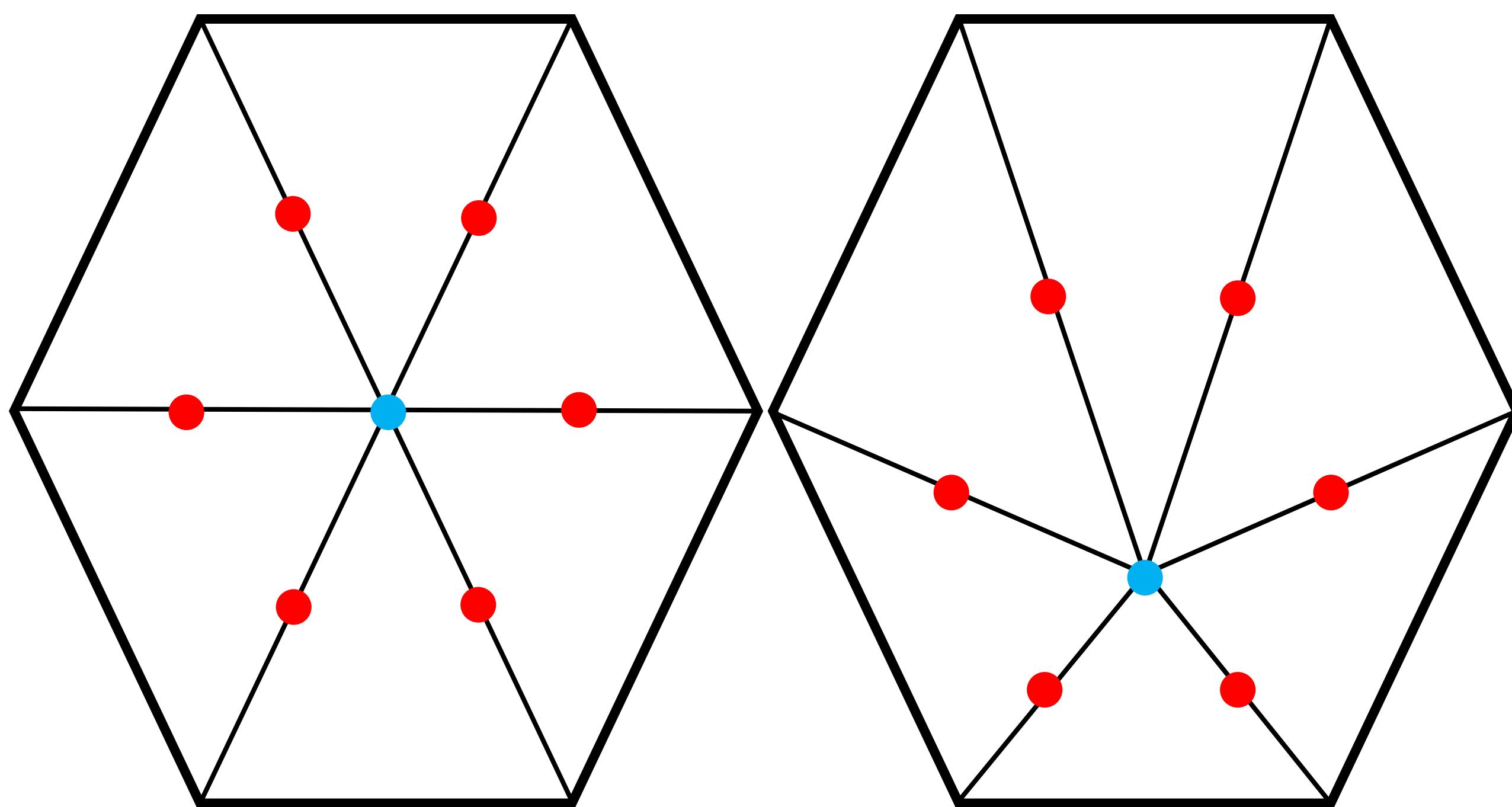


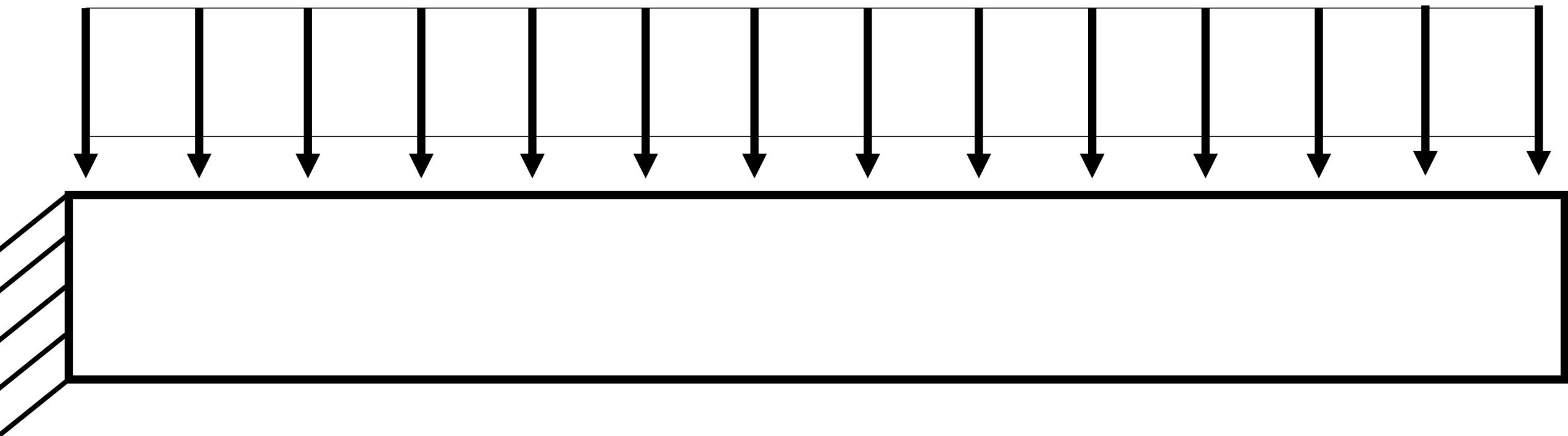


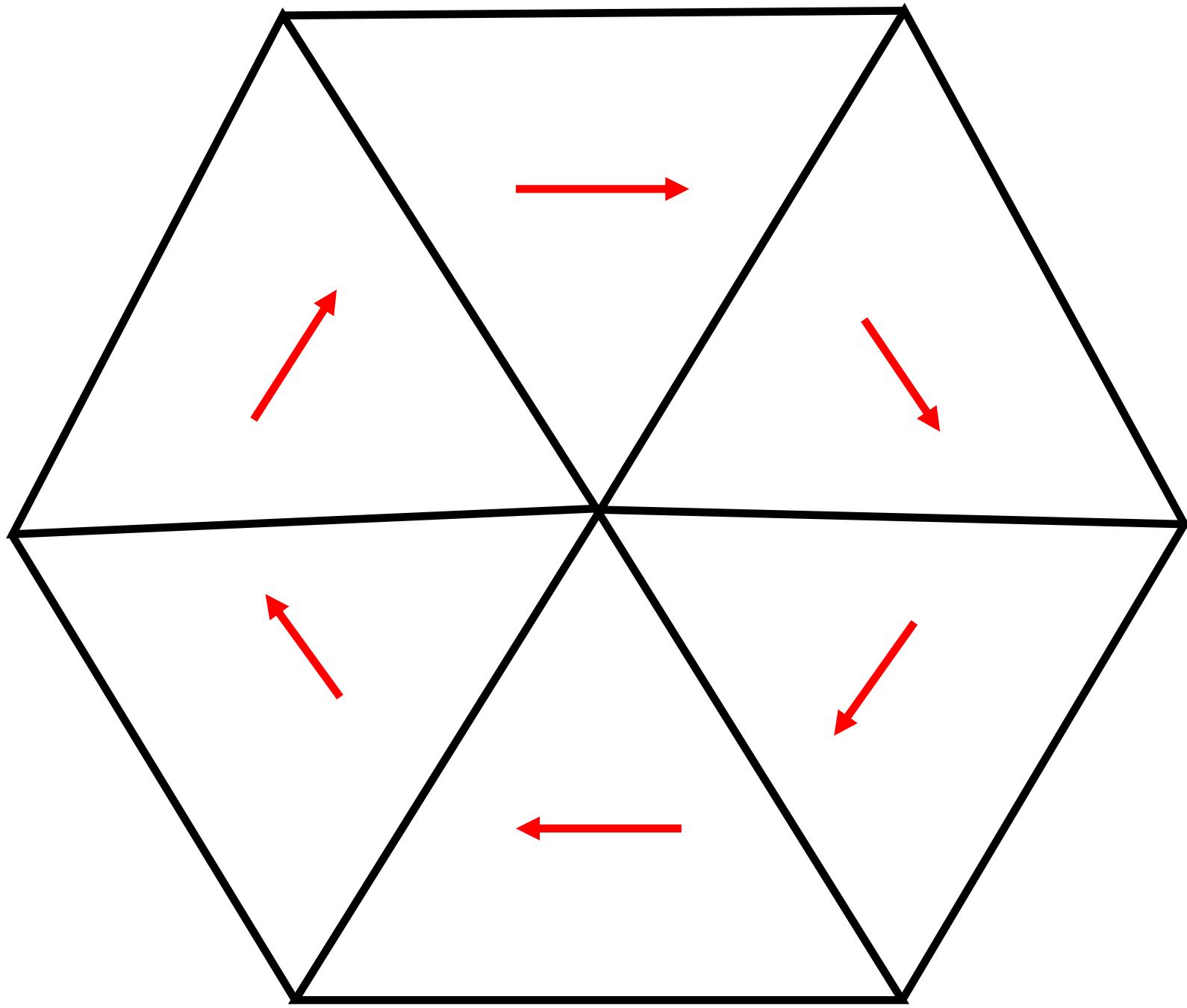
Nel caso lagrangiano, se ho un dof coarse, allora lo vedo come somma dei dof fine dello stesso piu' quelli a lui intorno, moltiplicati per $\frac{1}{2}$.
Nel caso RT, se ho un dof coarse, allora lo vedo come somma dei dof fine dello stesso, moltiplicati per $\frac{1}{2}$. In questo modo, se integro tale shape function sul lato coarse, ottengo $\frac{1}{2} + \frac{1}{2} = 1$. Nota che in questo modo non integro su un lato che approssima la reale geometria, ma consider proprio la forma del dominio fine.
Ovviamente in caso di assenza di contatto per E, spengo tale DOF. Questo equivale a porvi uno zero nella riga nella matrice di proiezione. Invece sulla riga di D, pongo $\frac{1}{2}$. Quindi la correzione coarse che calcolo si distribuisce sui lati fine come 0 e $\frac{1}{2}$. Questo vuol dire che ogni volta che faccio un MG con contatto, devo ricostruire P, semplicemente andando a spegnere i dof (porli a zero) che stanno uguagliando i constraint.
($p_n=0, u_n=g$)

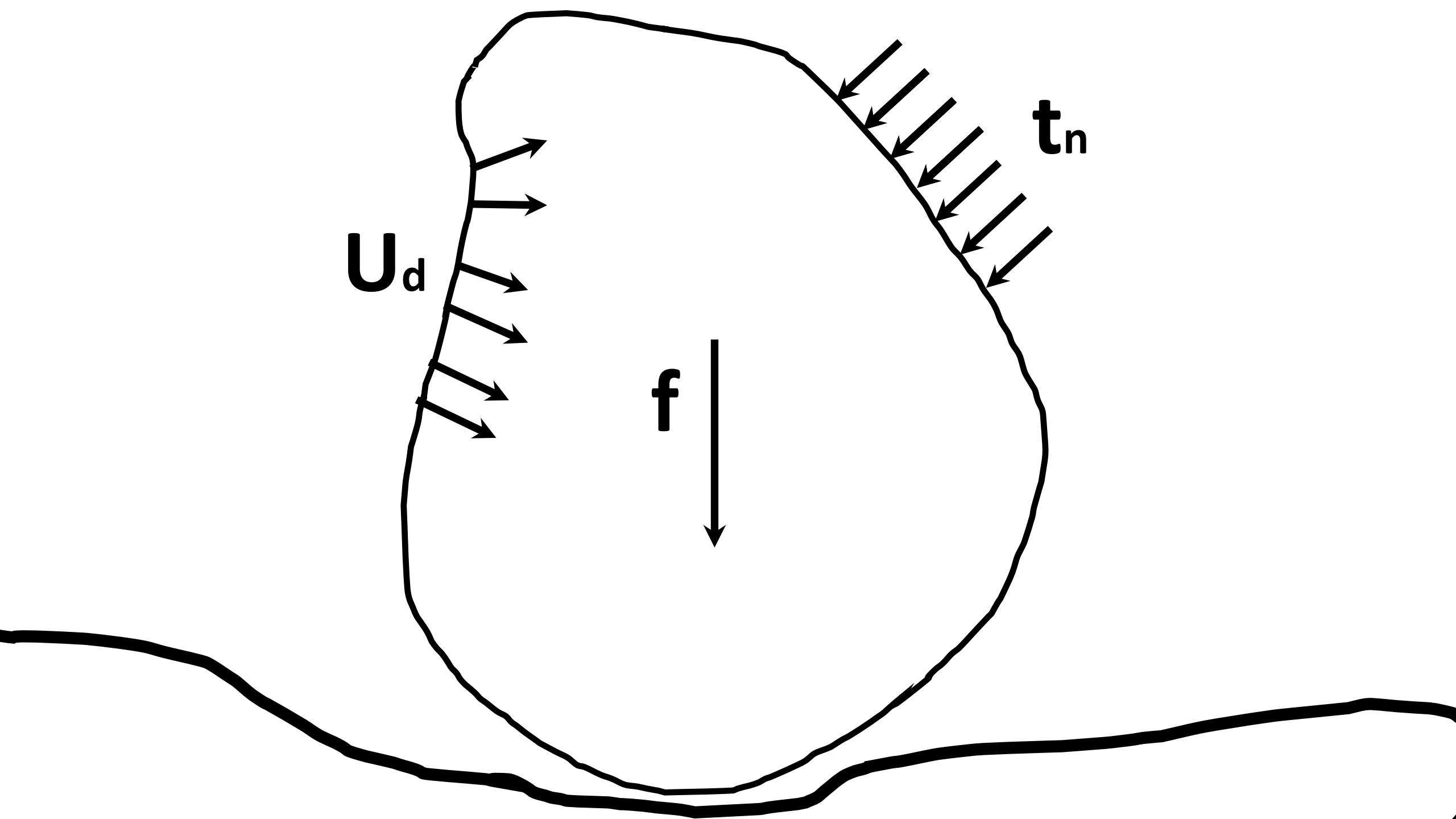


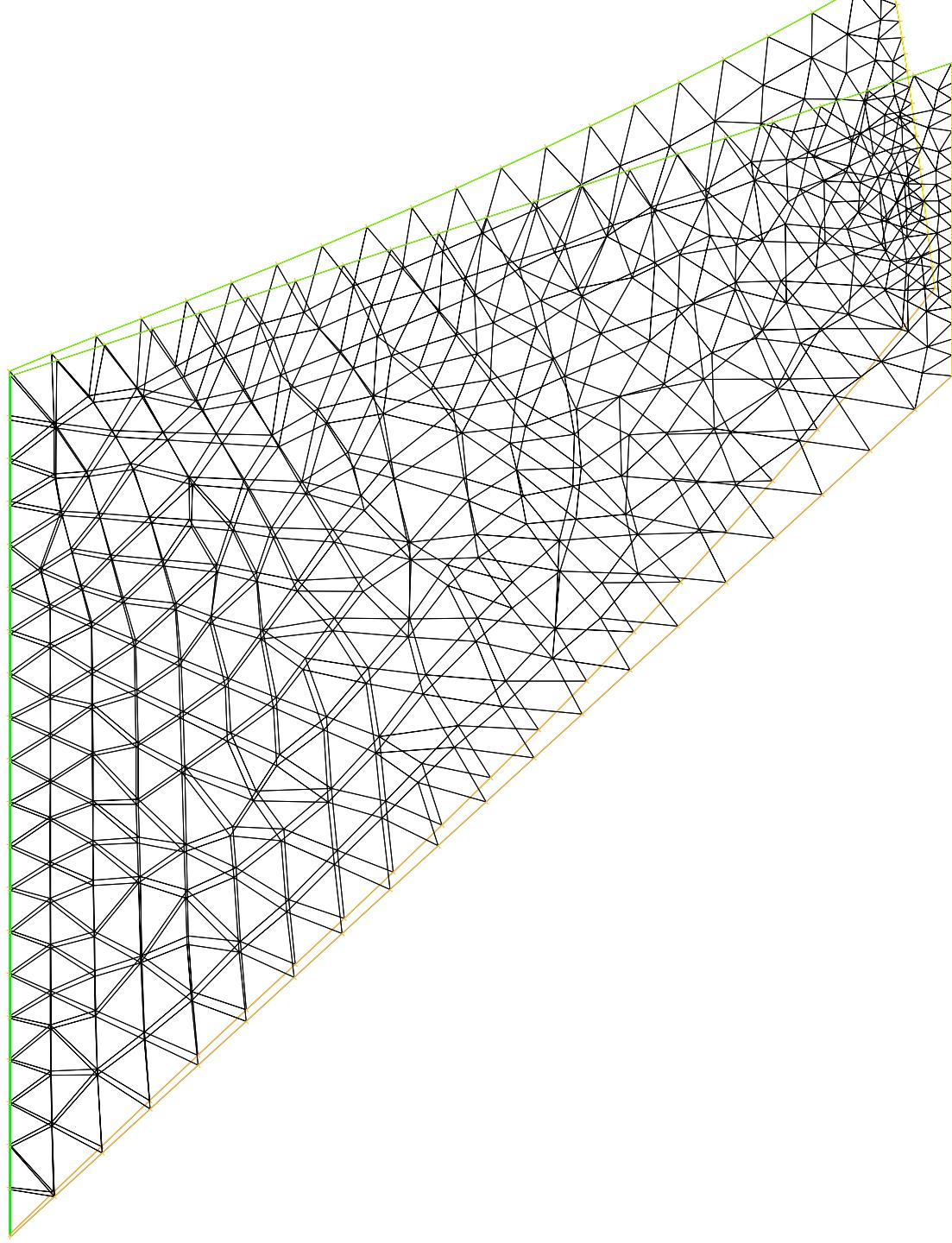


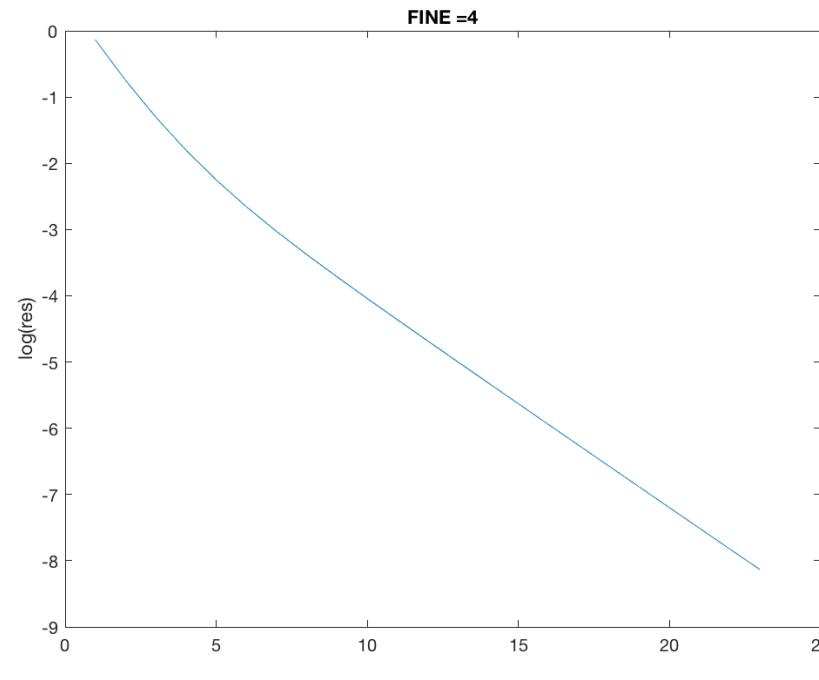
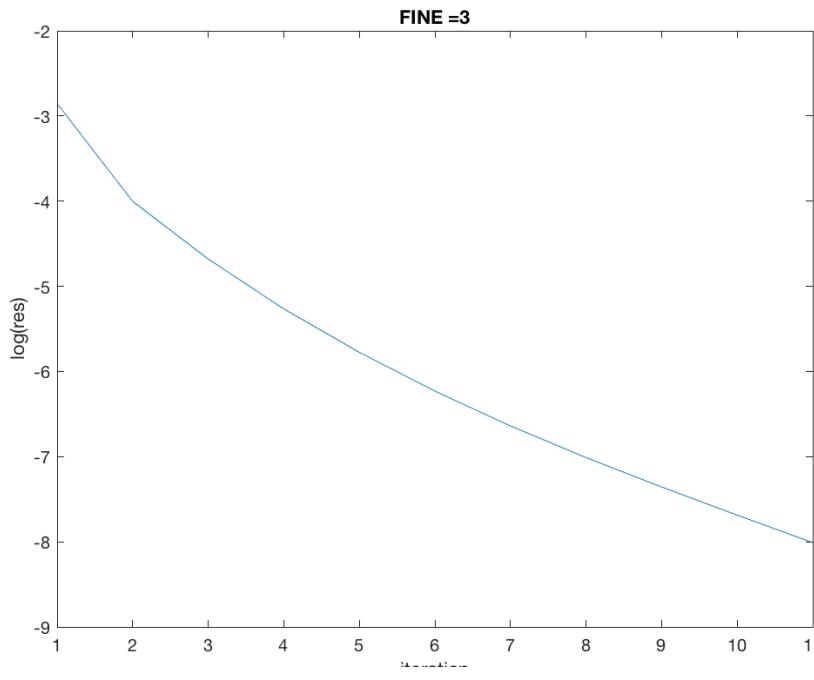


F_y 

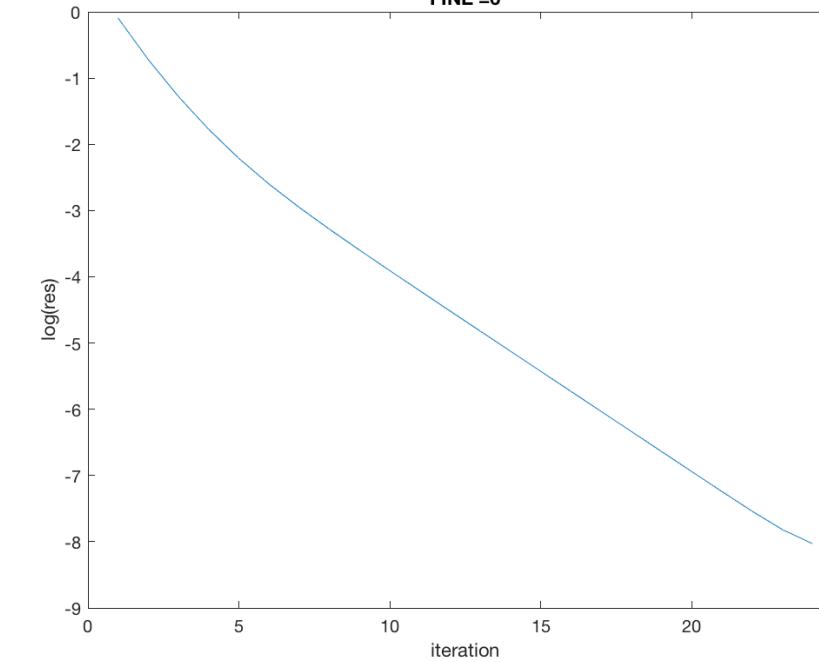
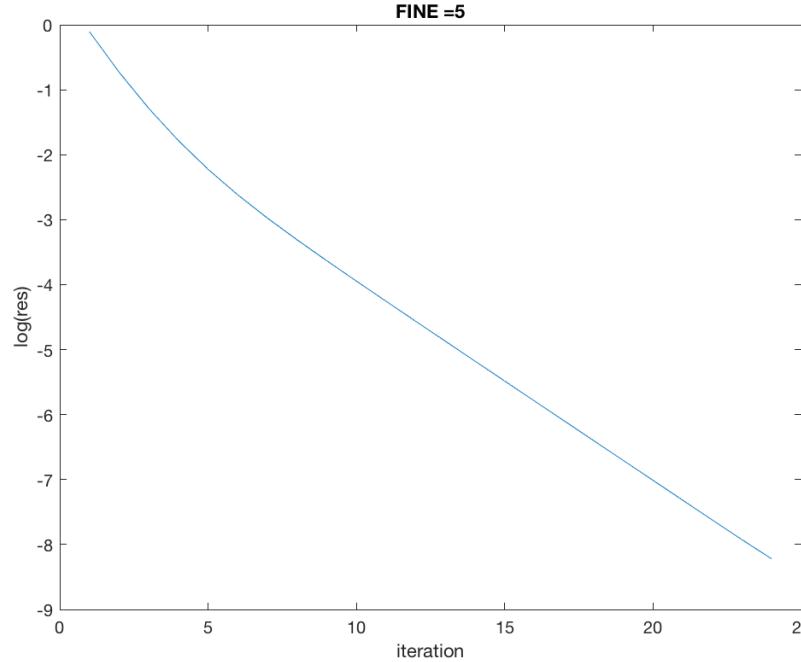


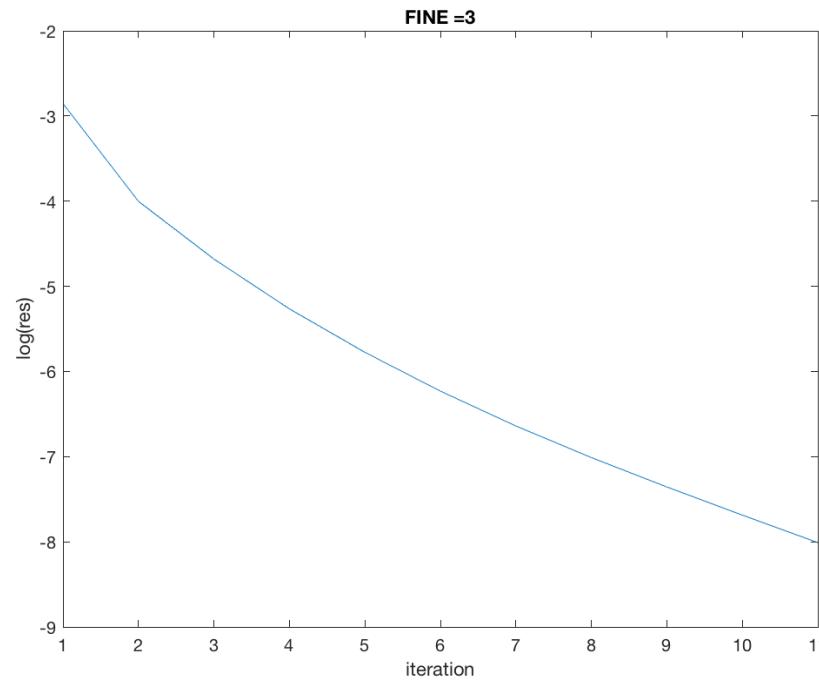
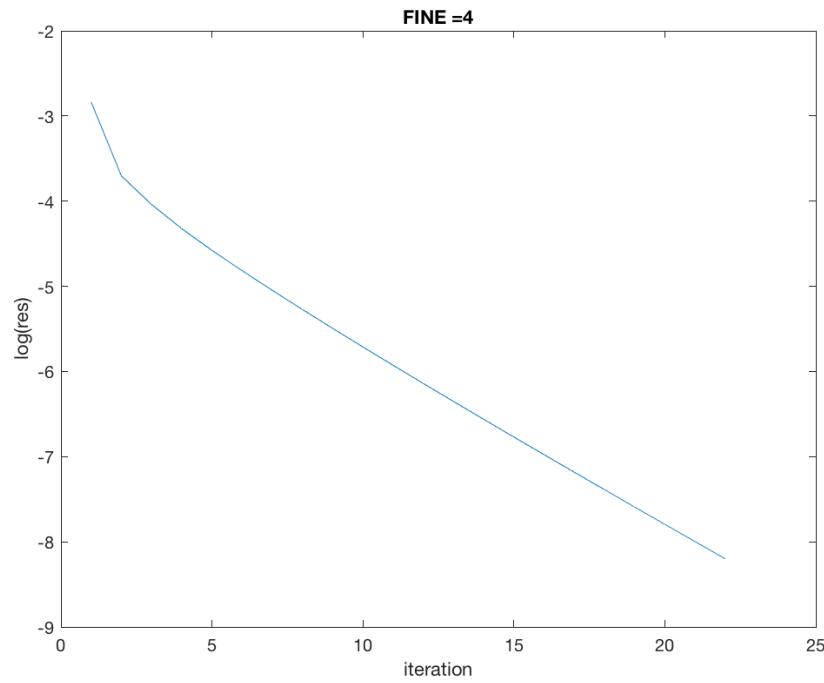




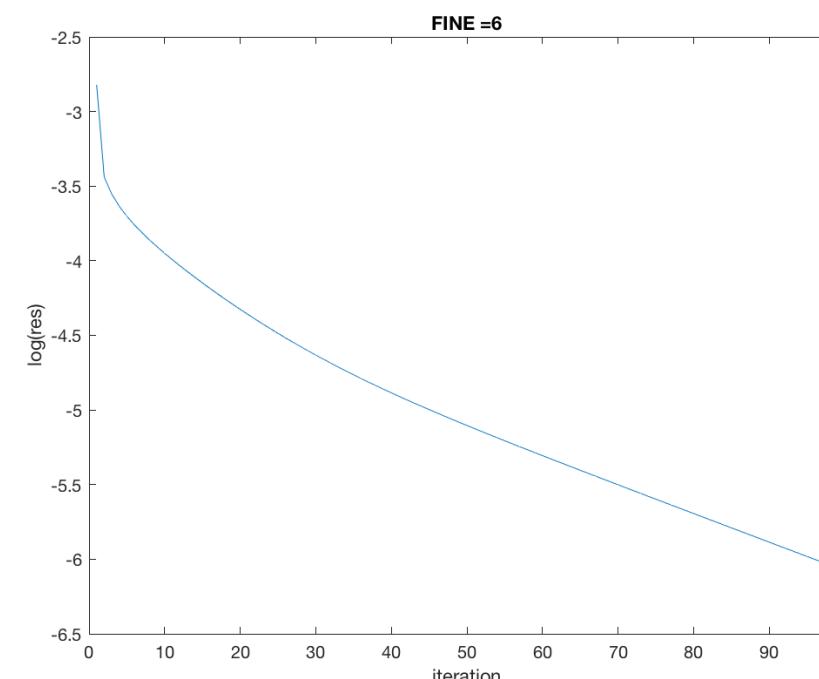
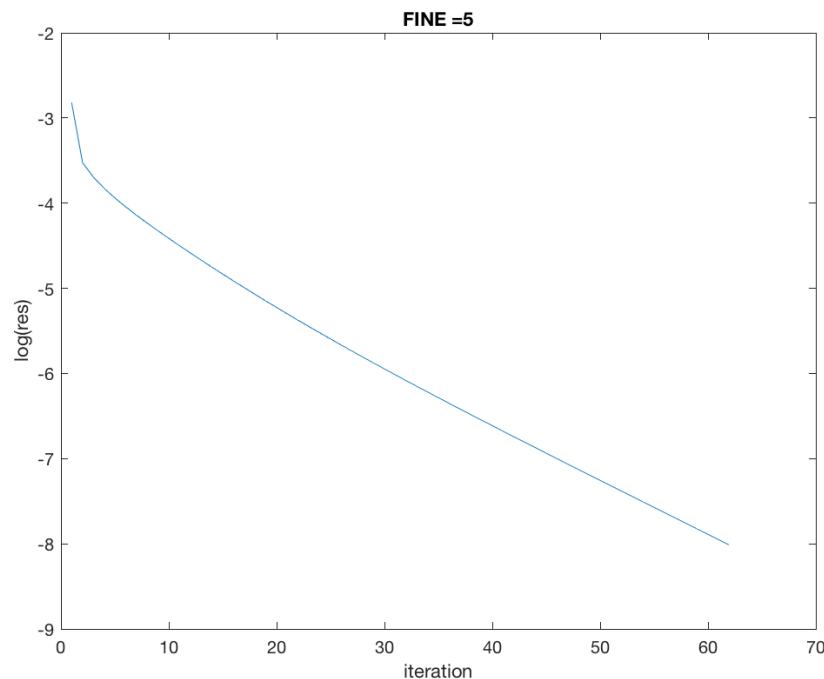


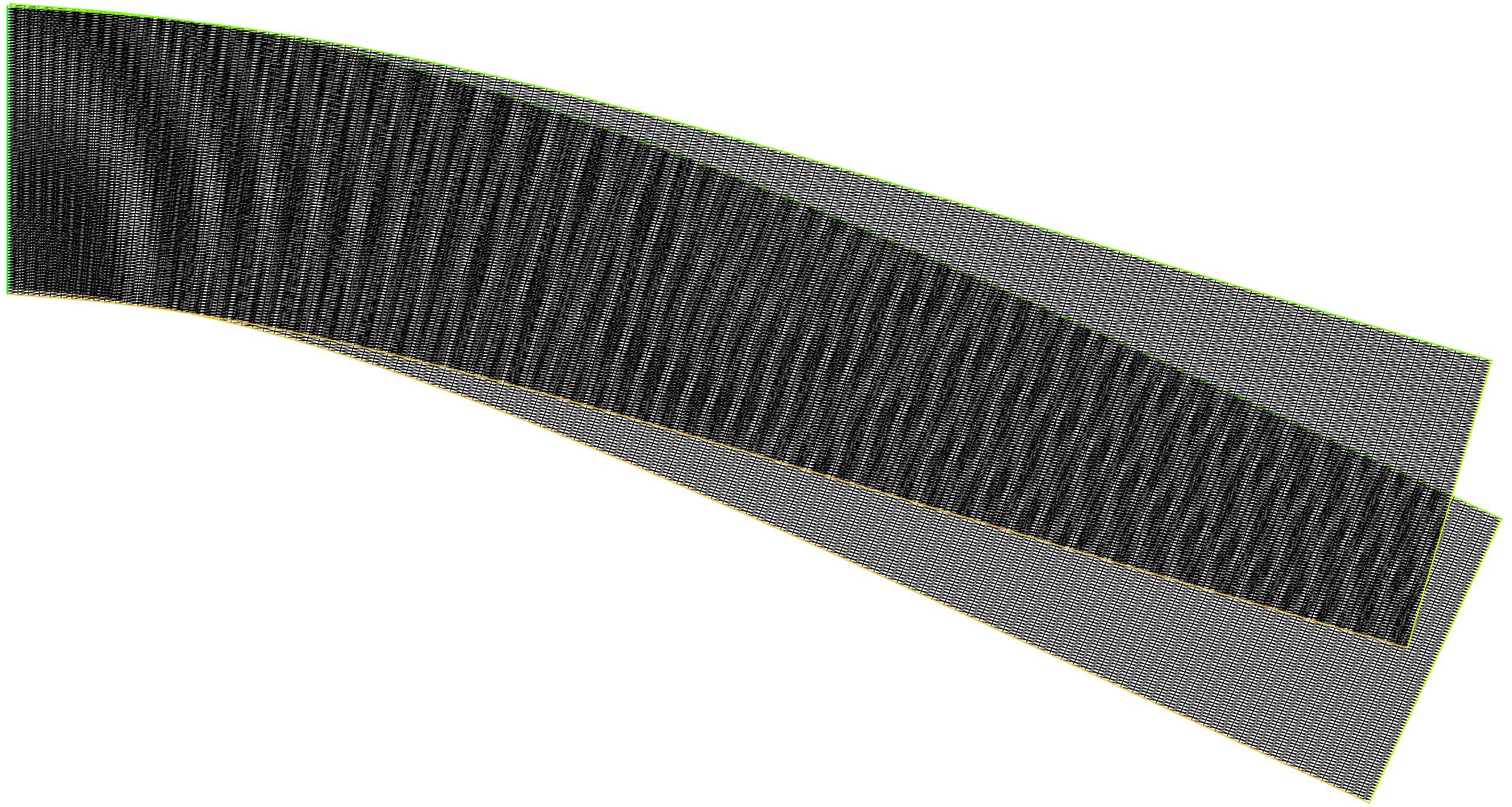
Dirichlet oconditions

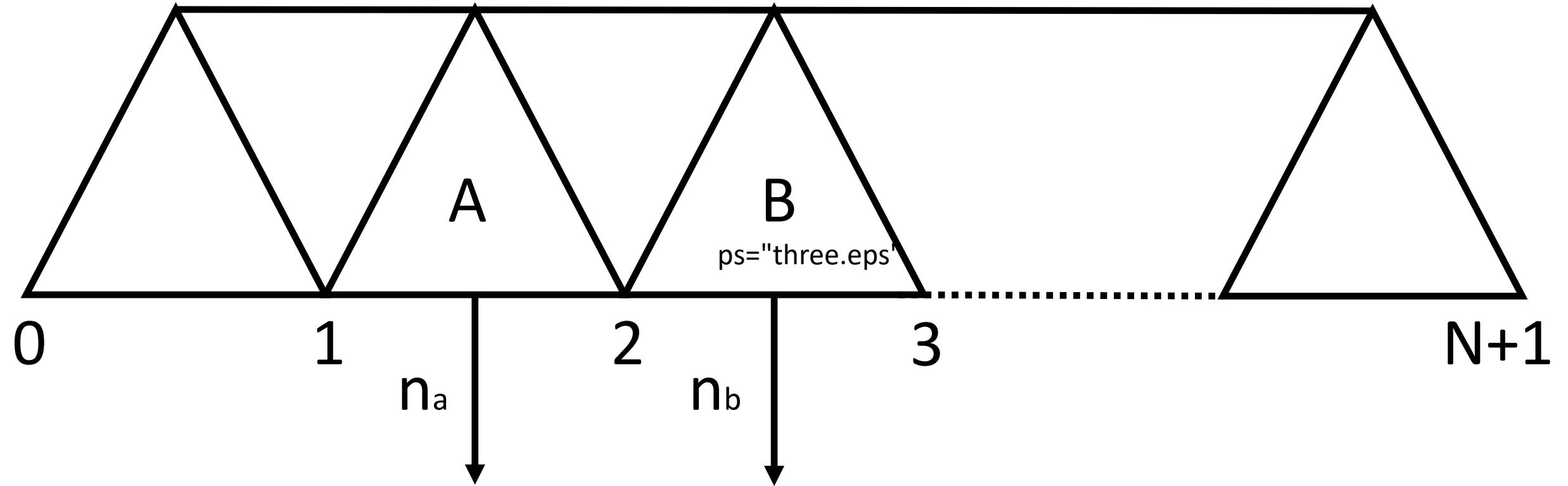


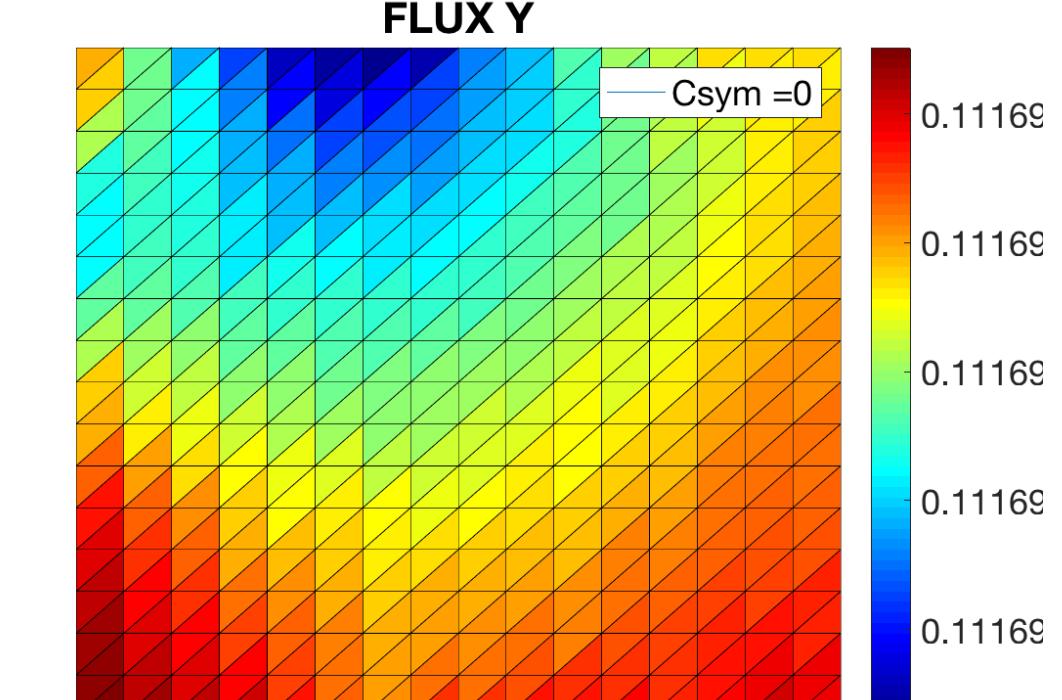
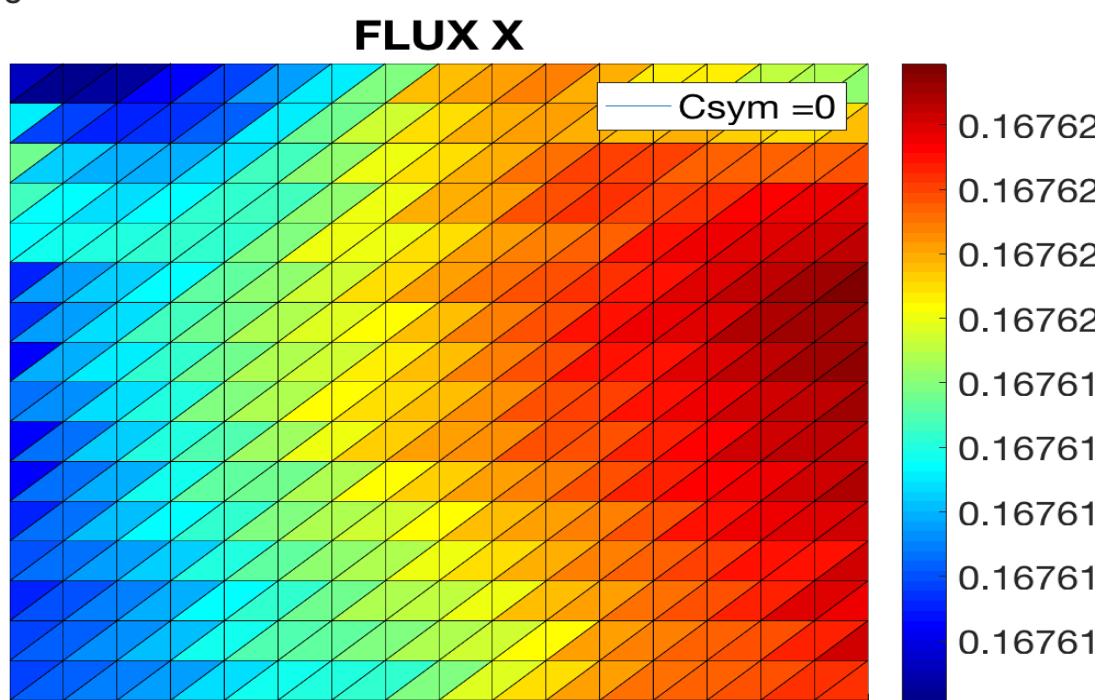
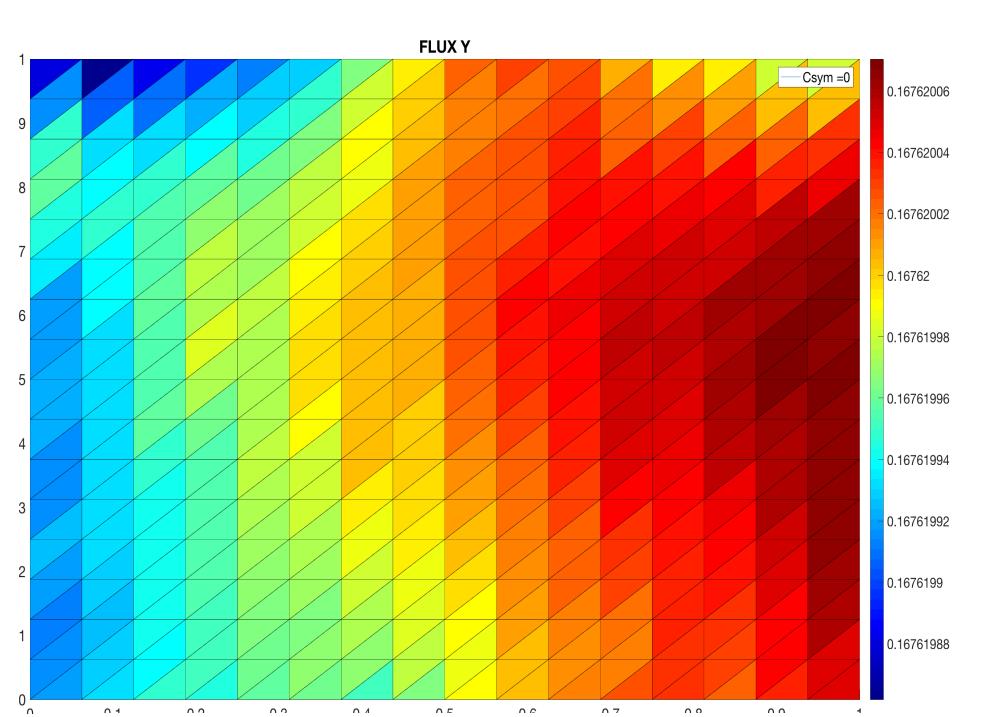
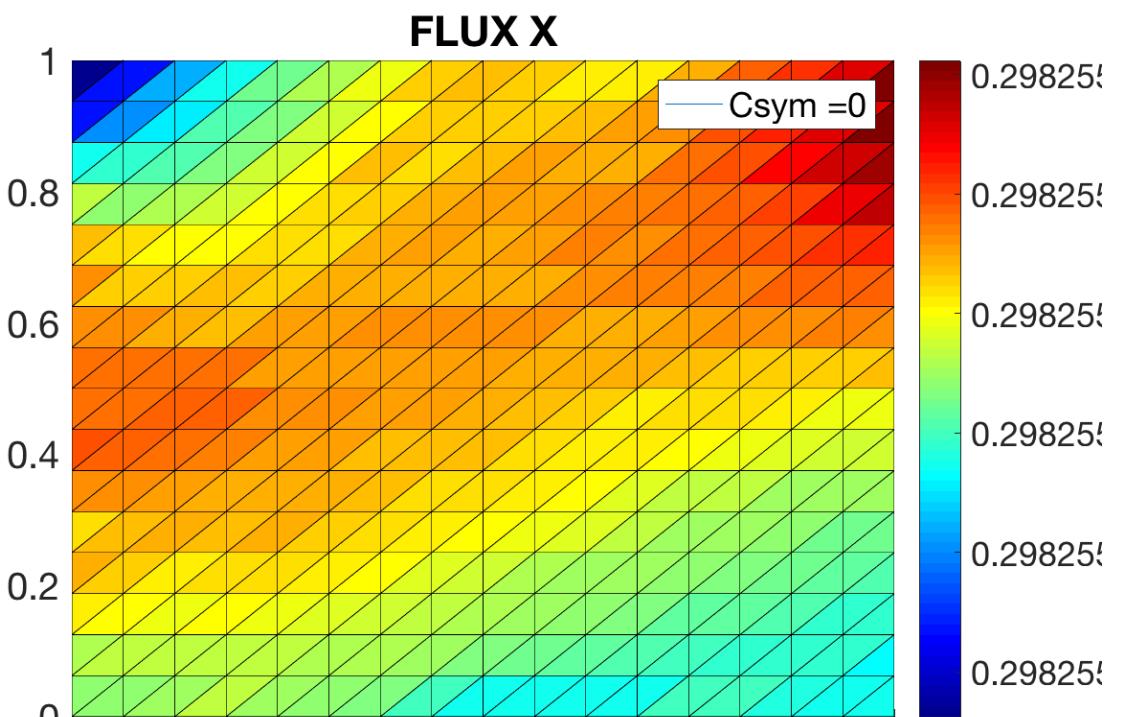


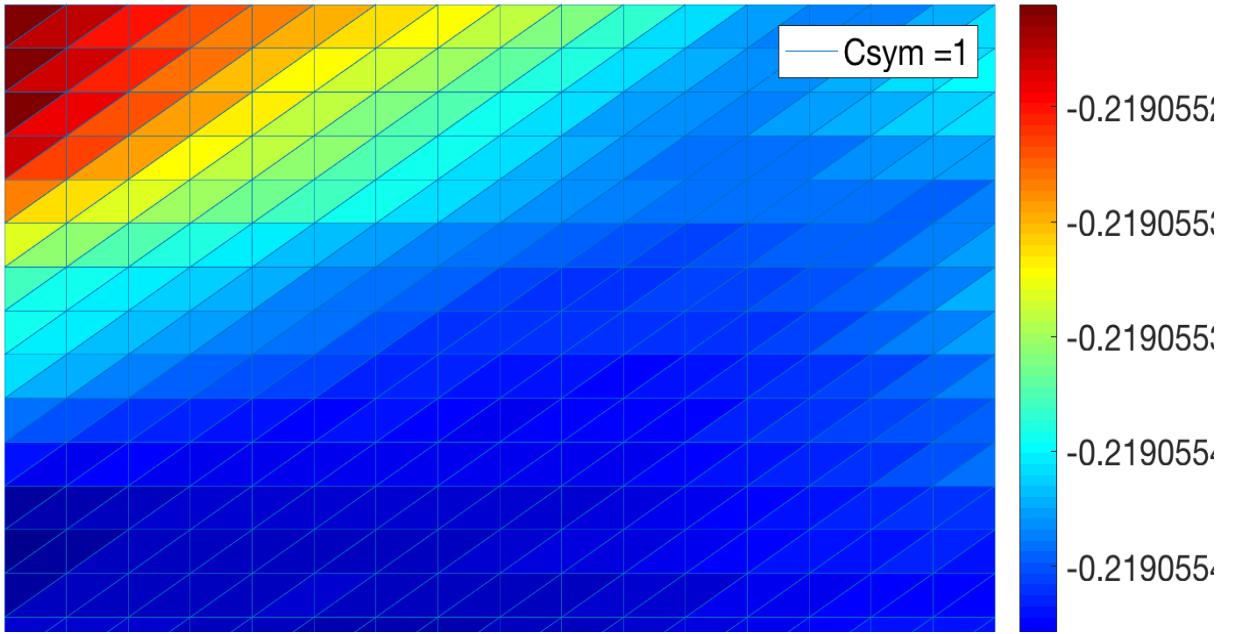
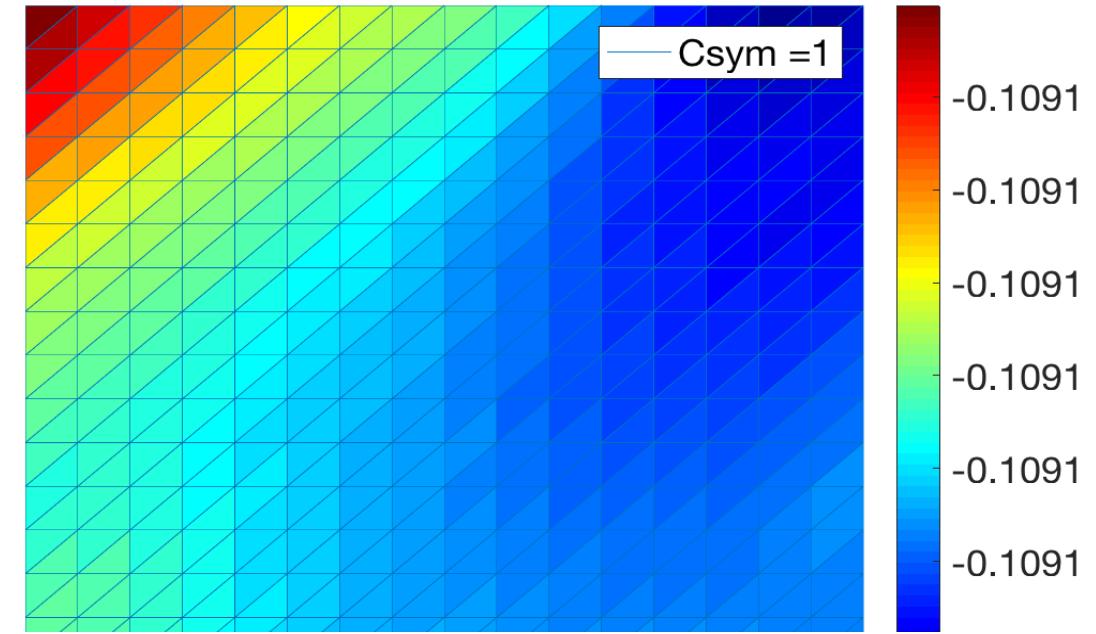
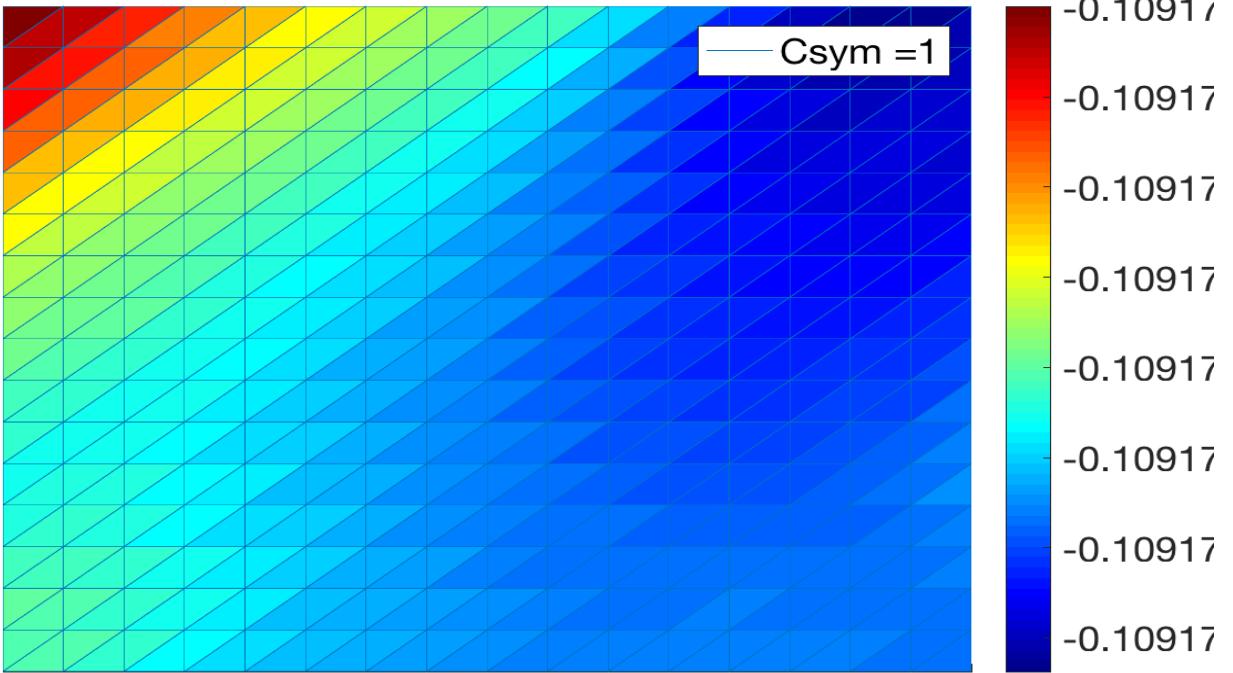
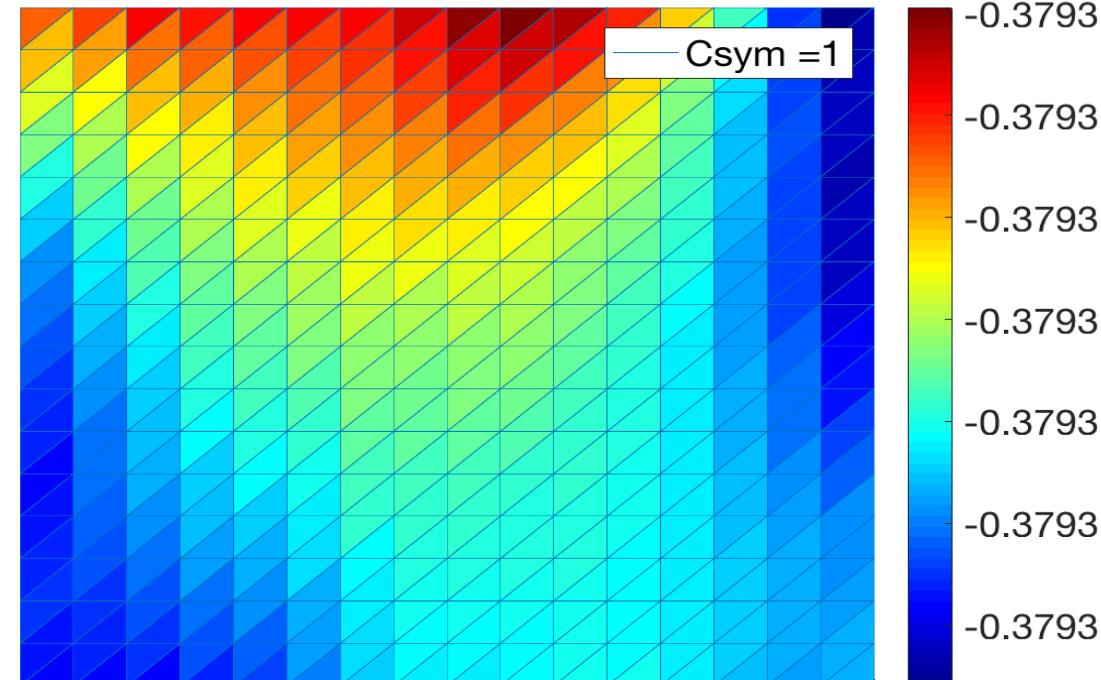
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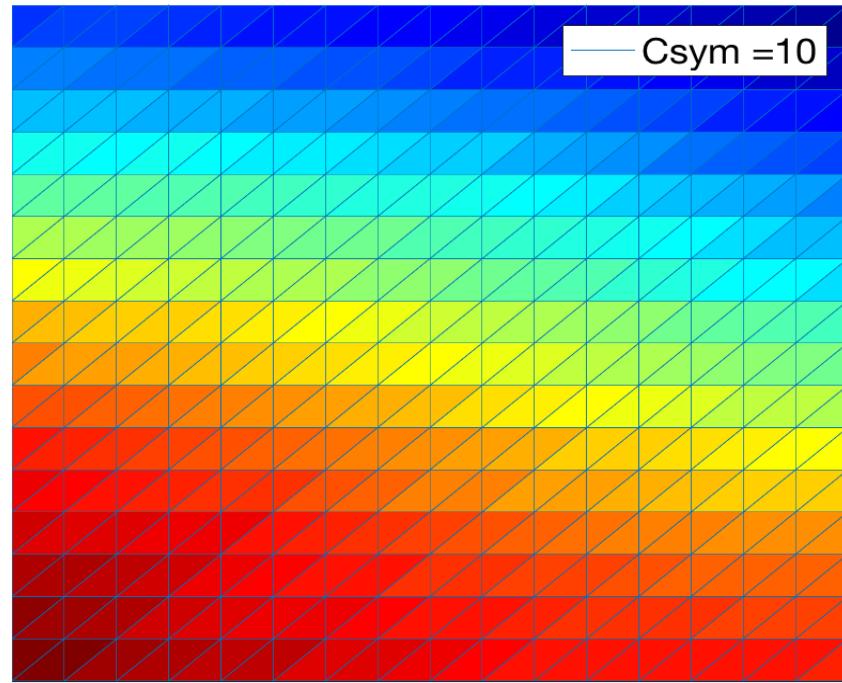
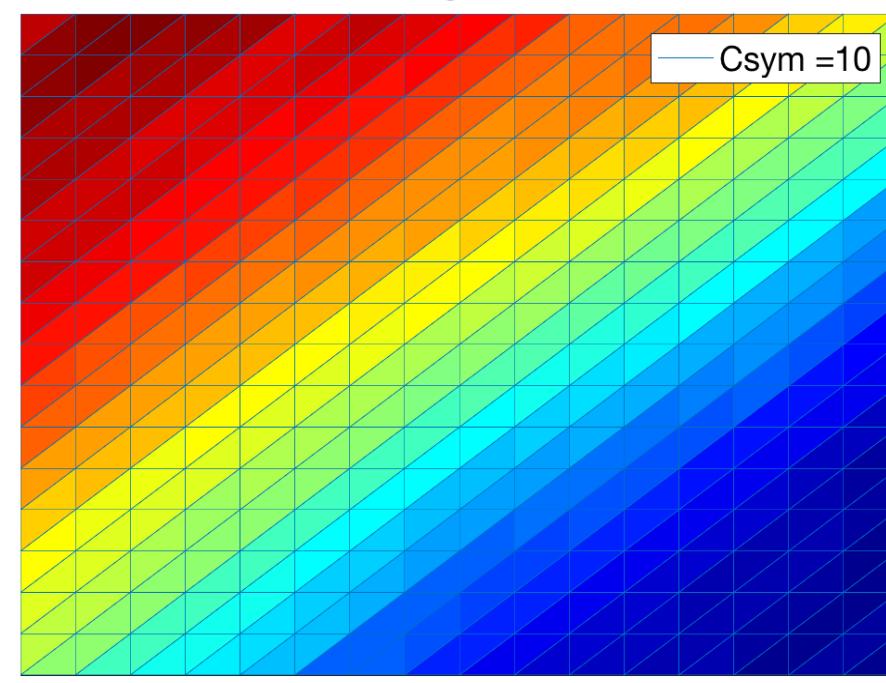
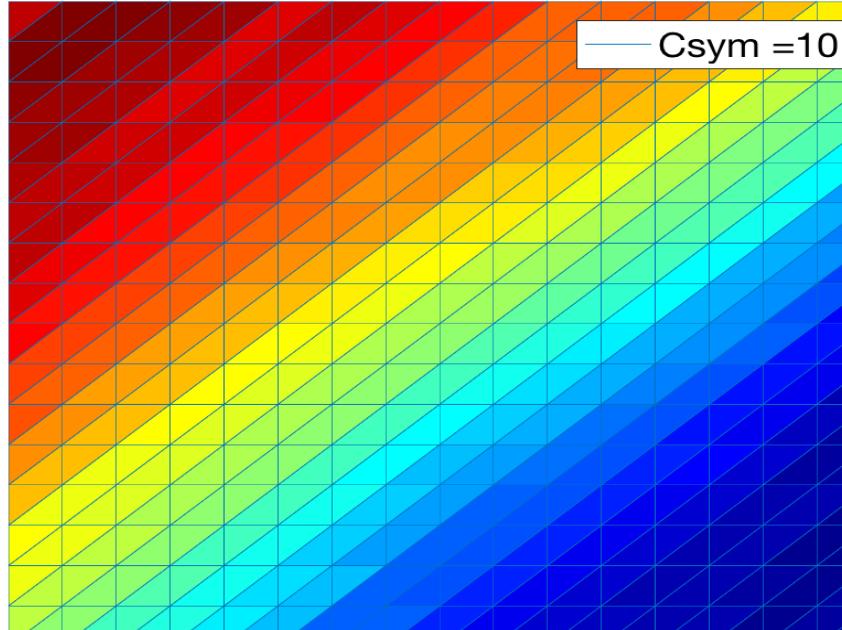
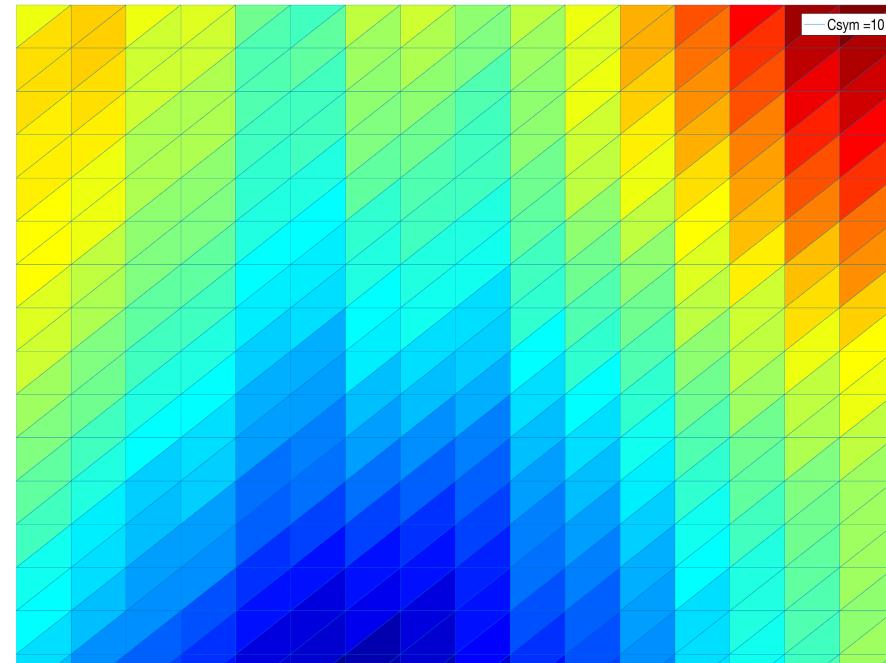


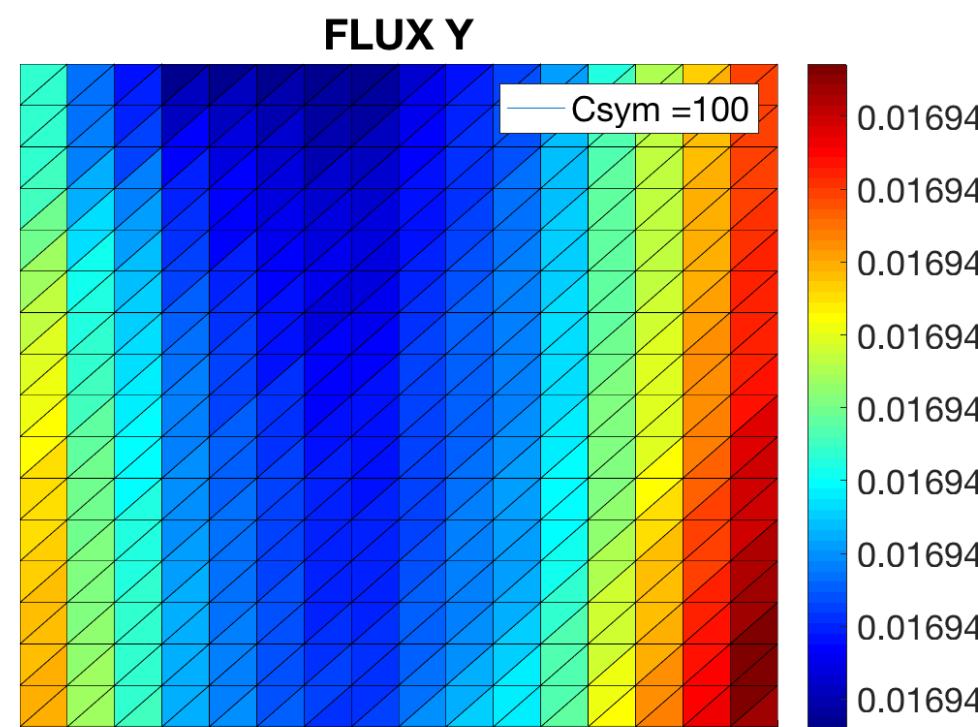
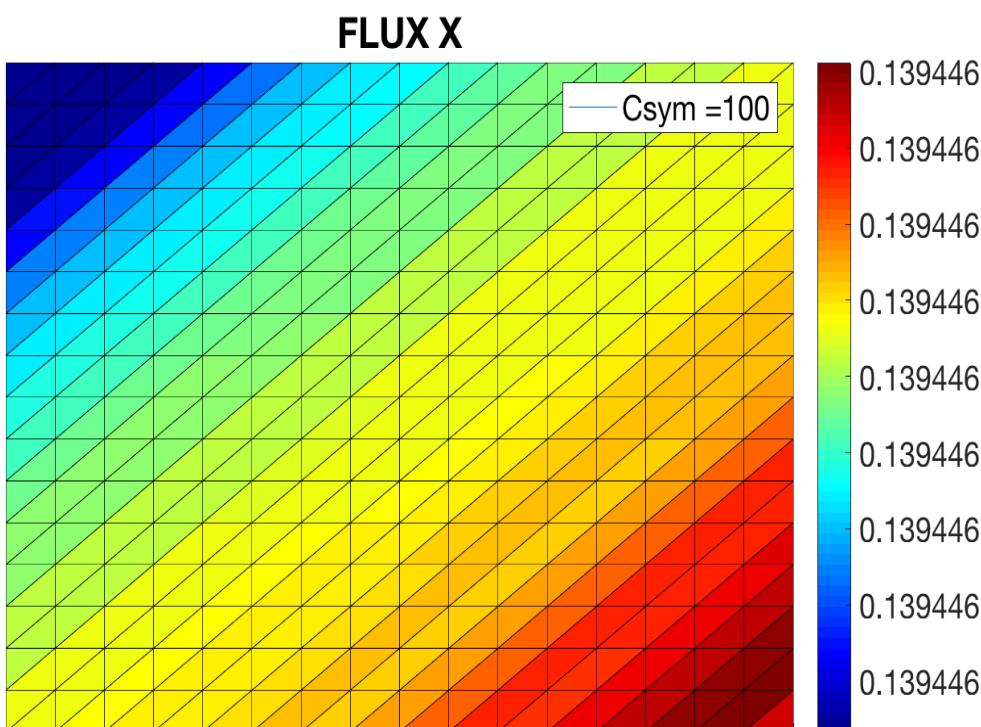
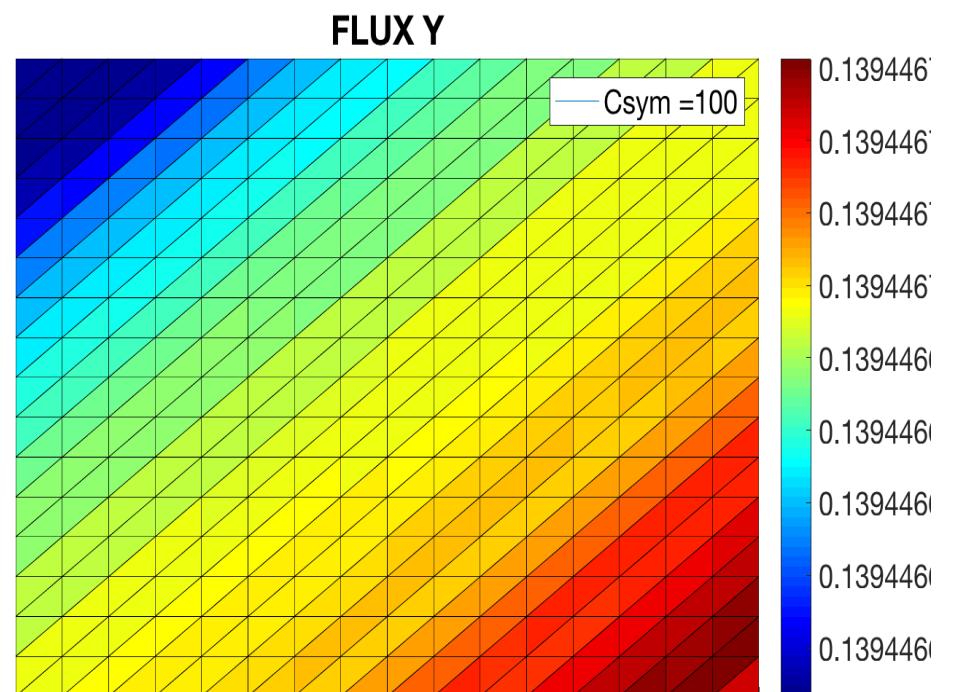
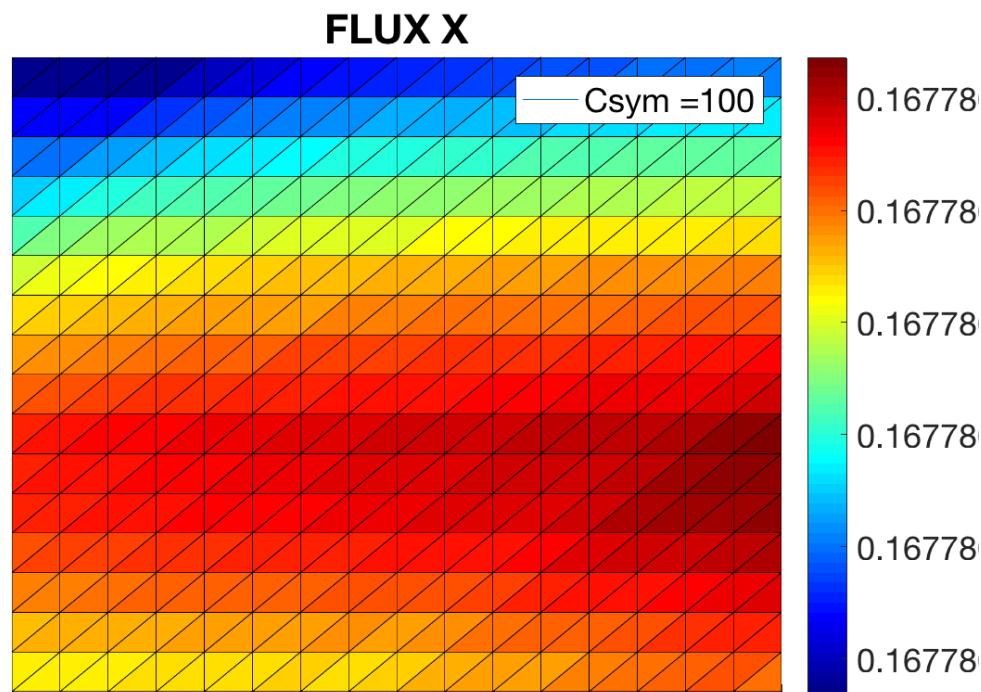




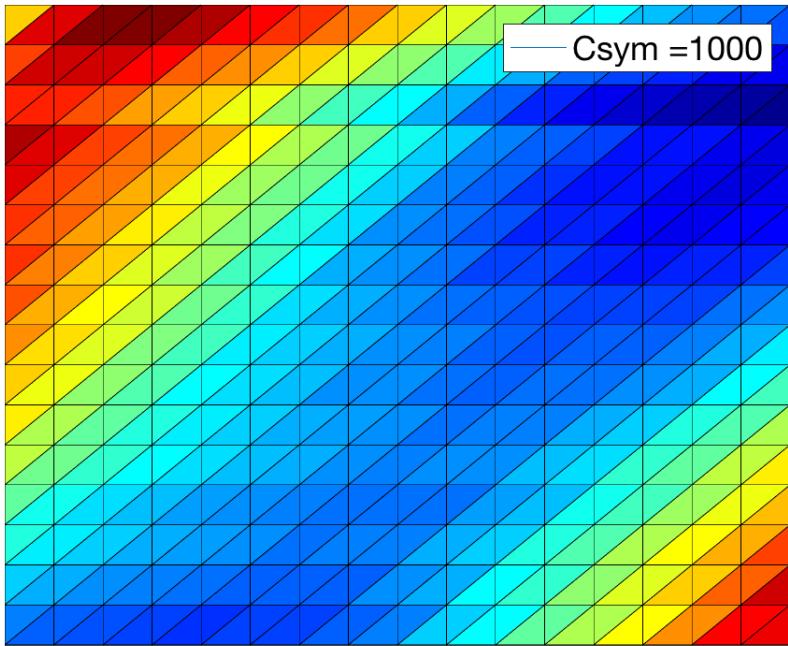


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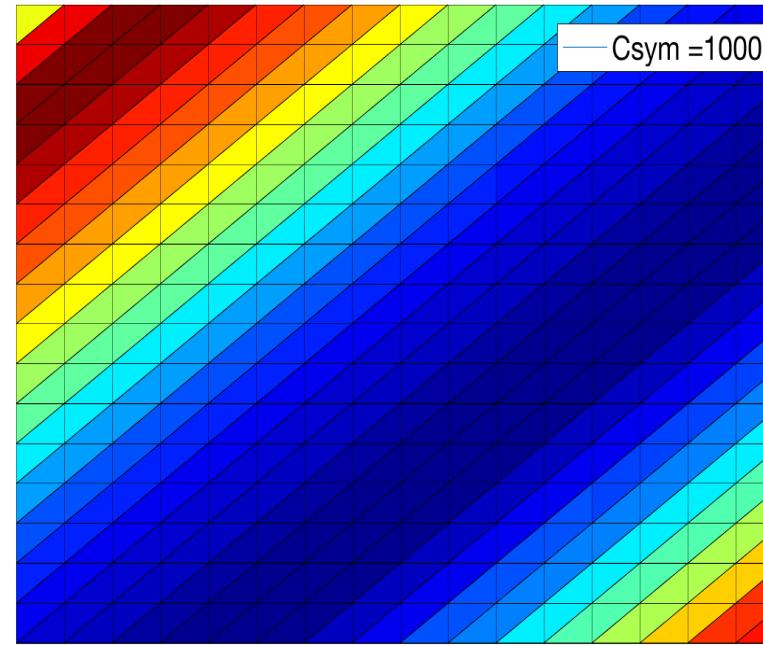
FLUX X**FLUX Y****FLUX X****FLUX Y**



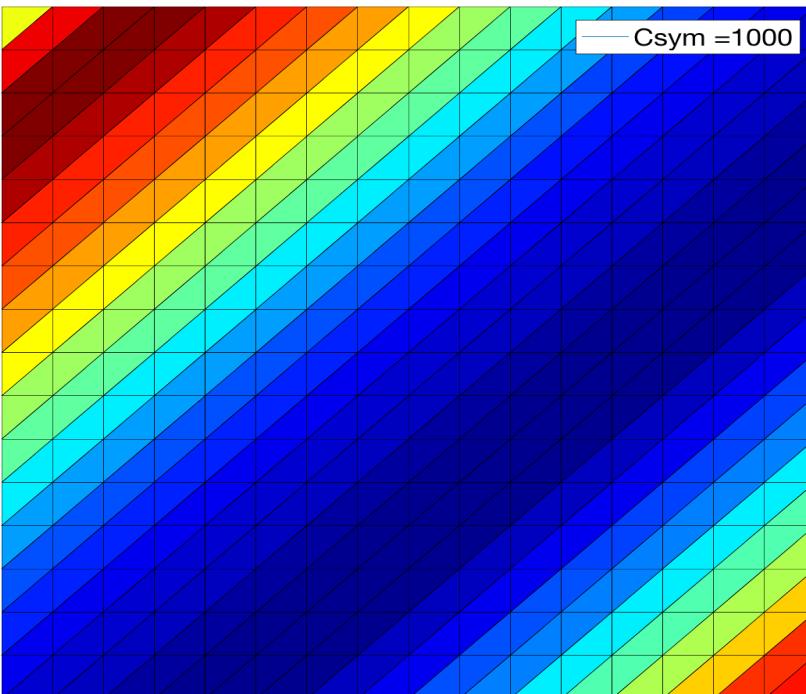
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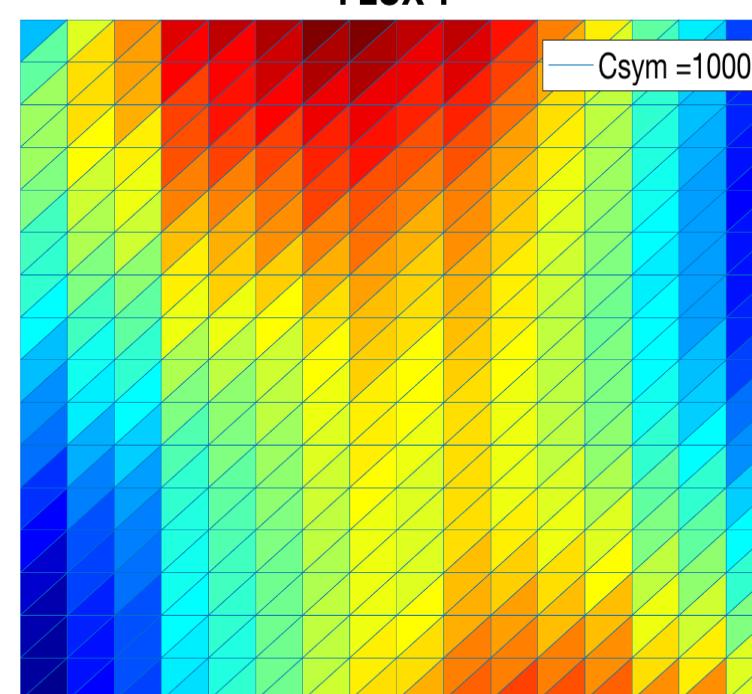
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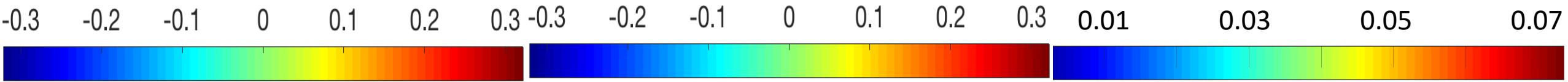
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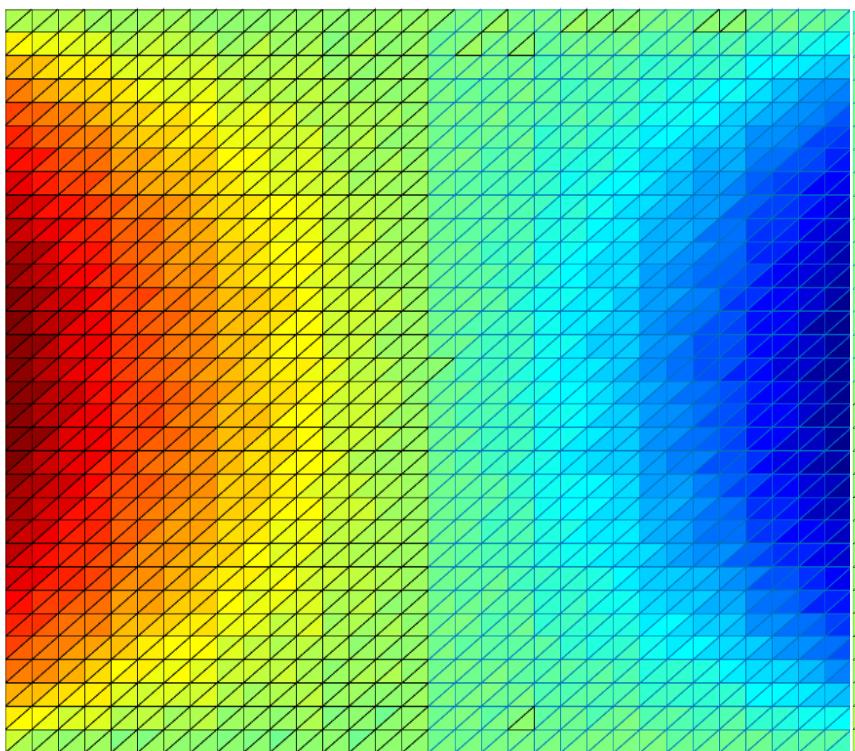
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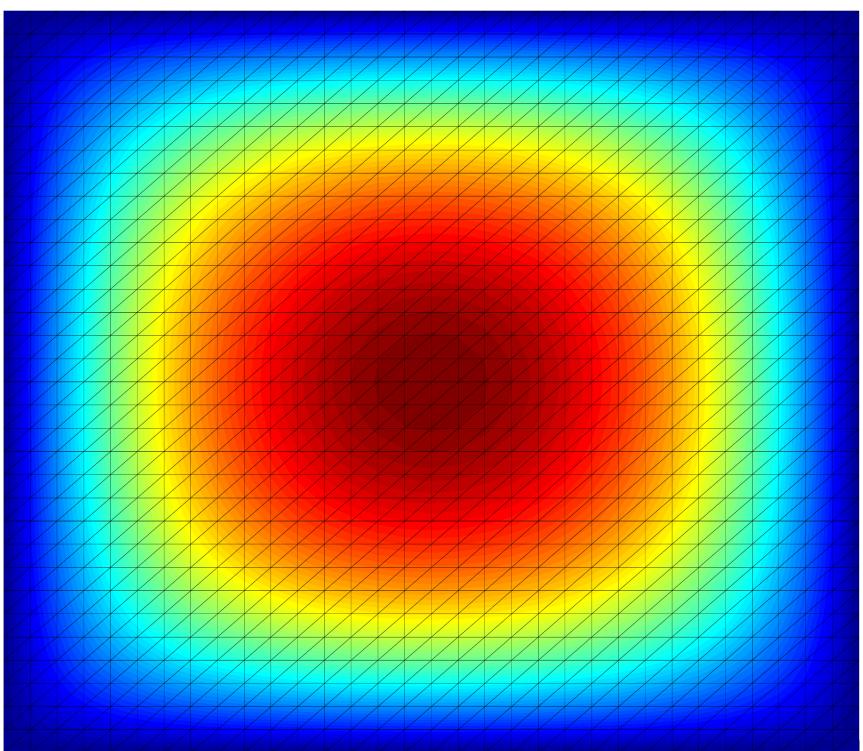
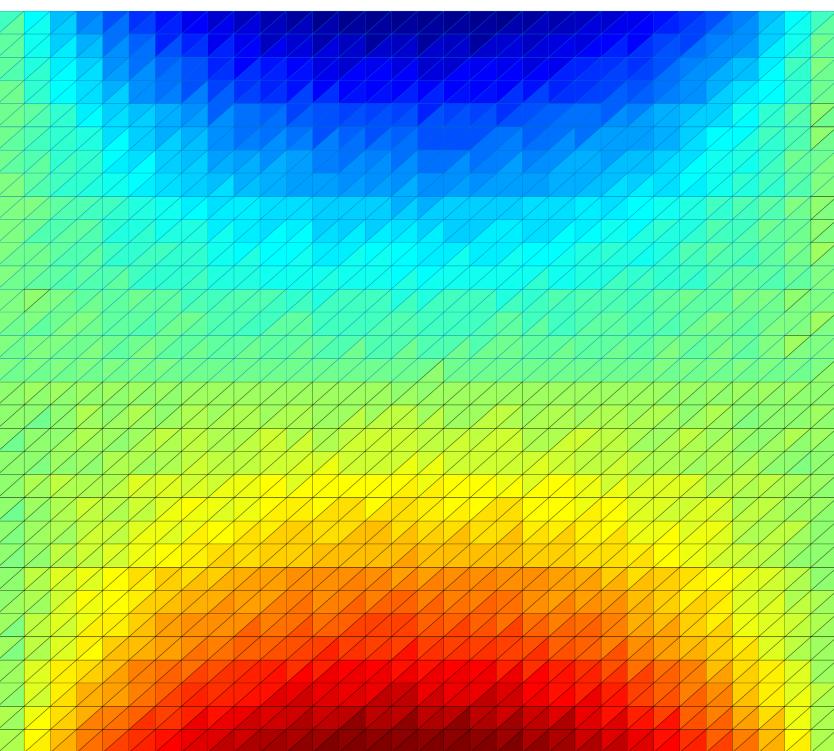


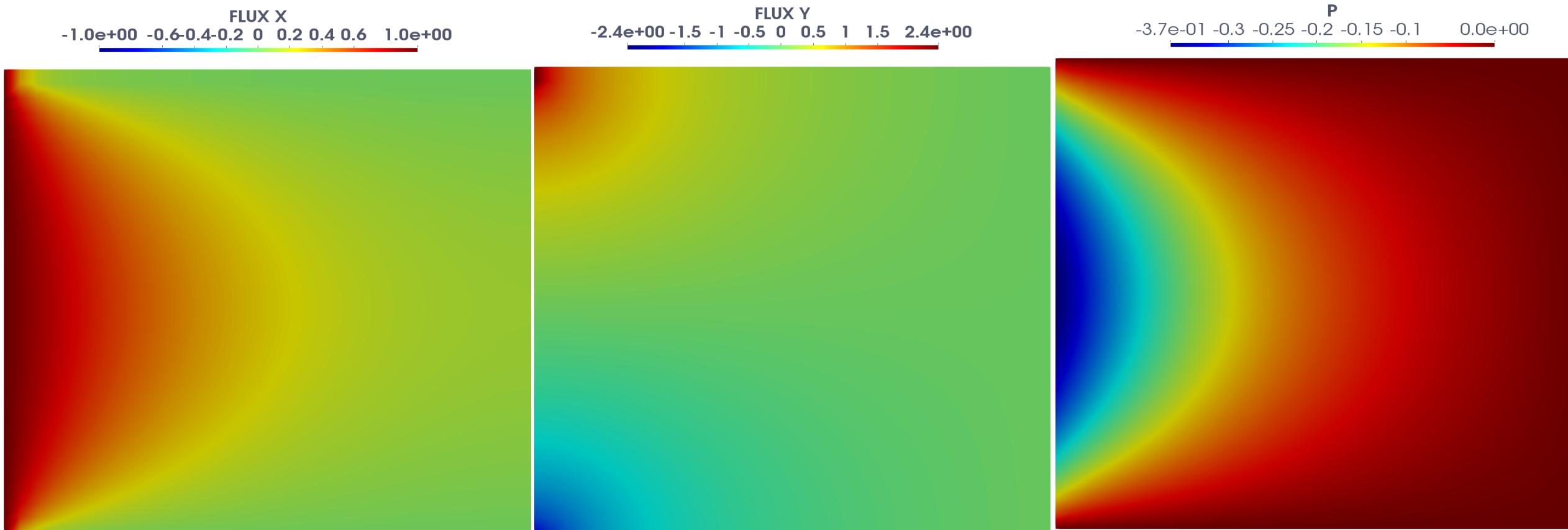


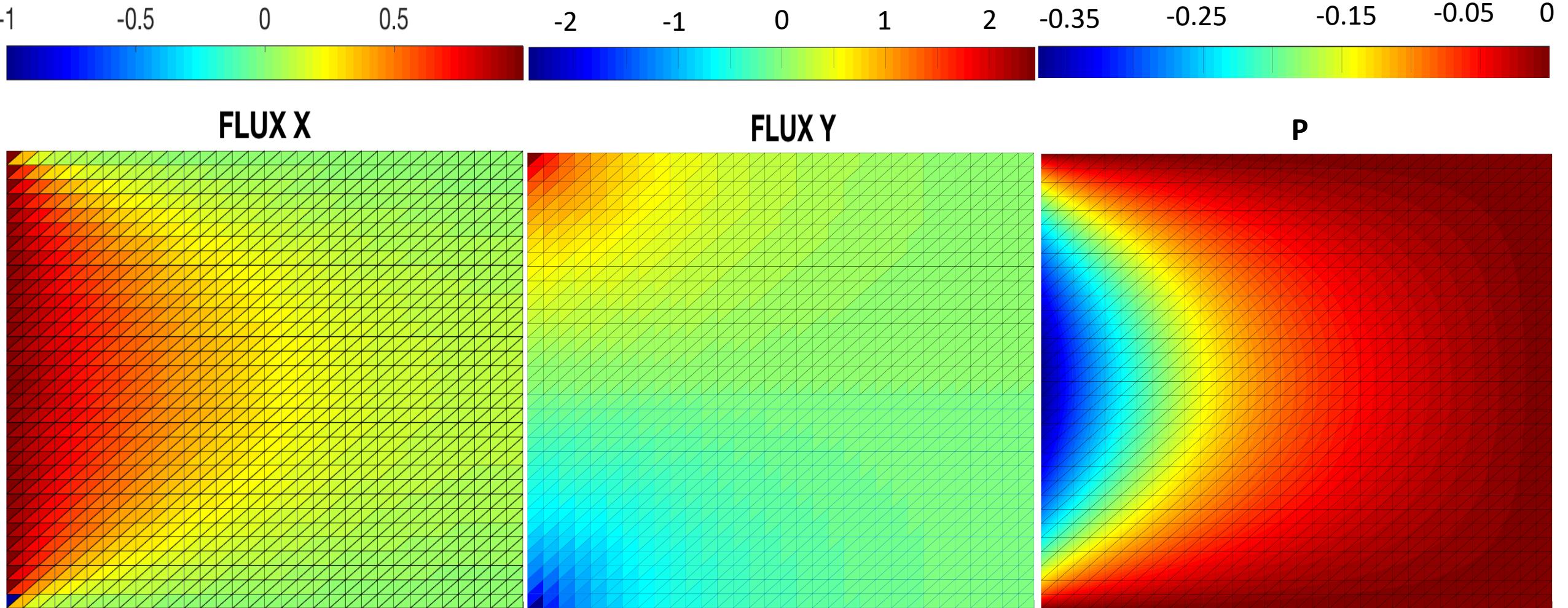
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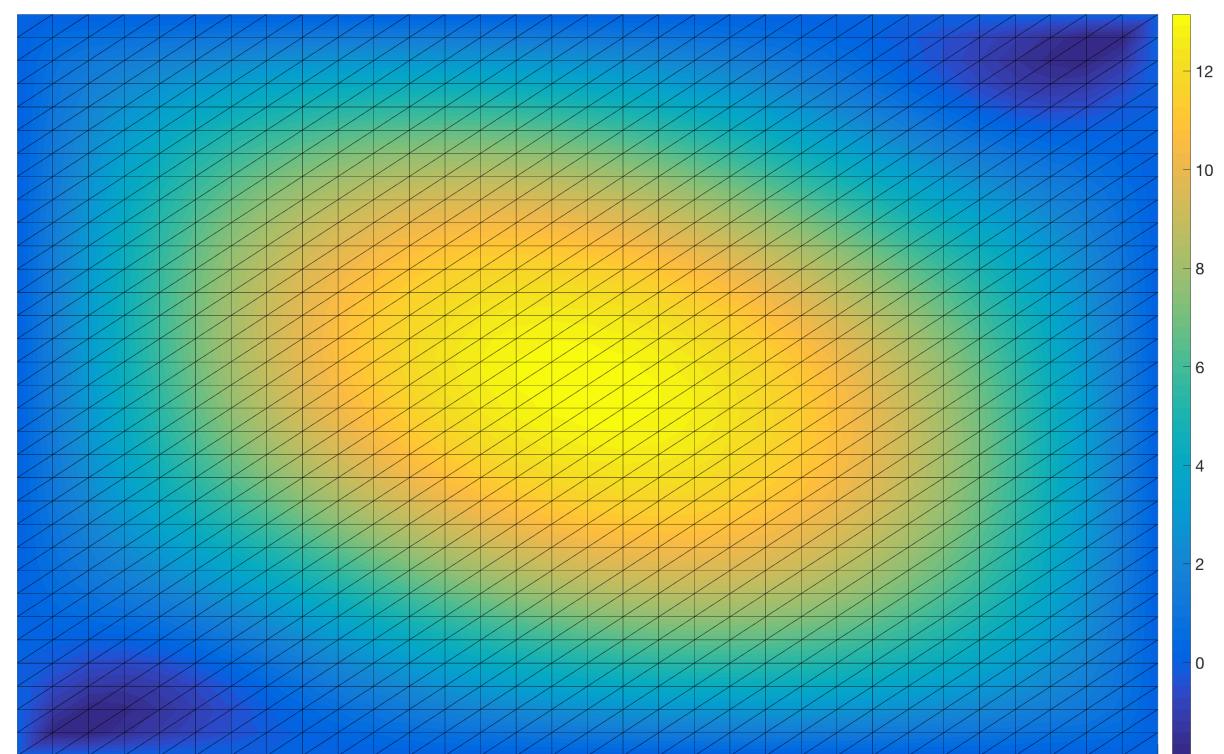
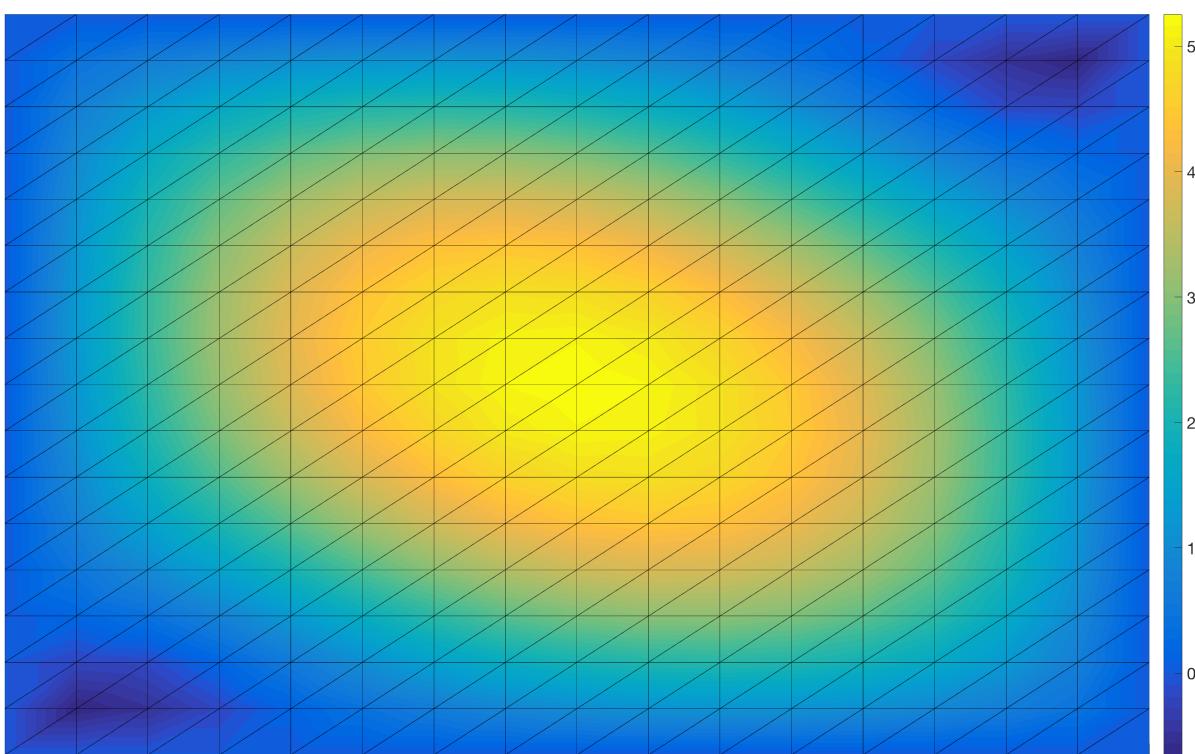


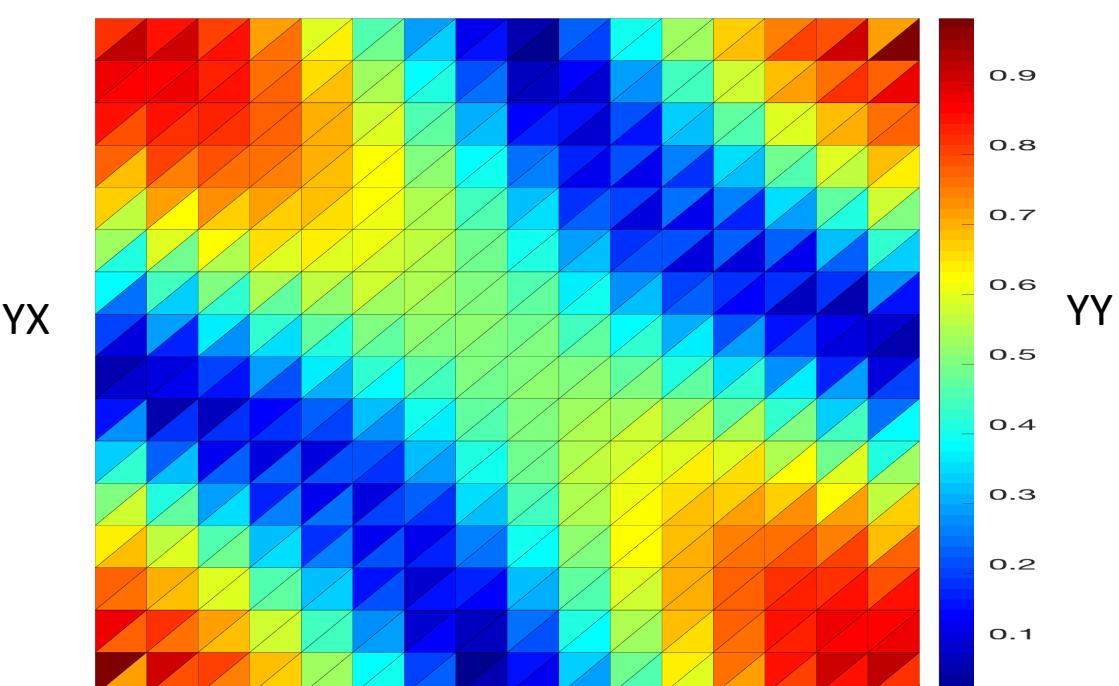
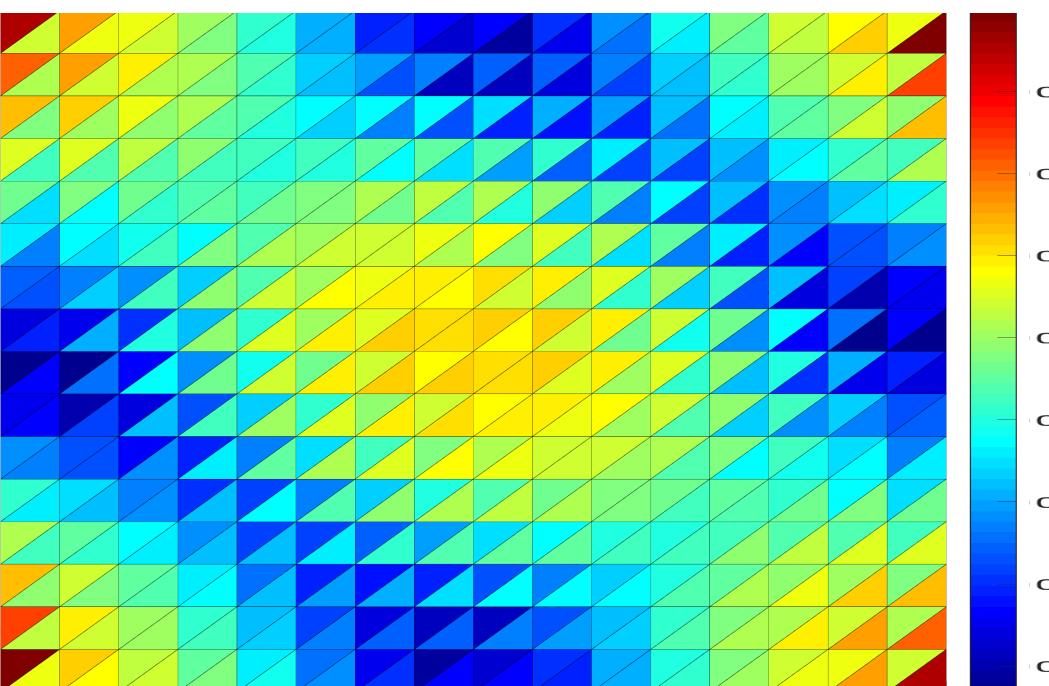
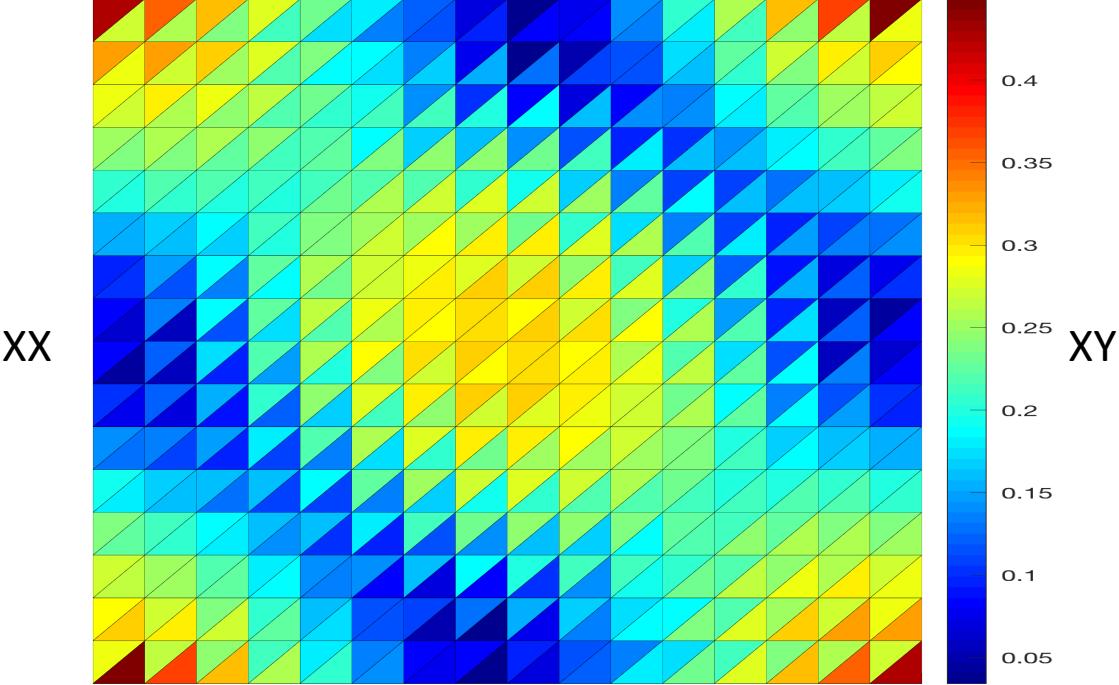
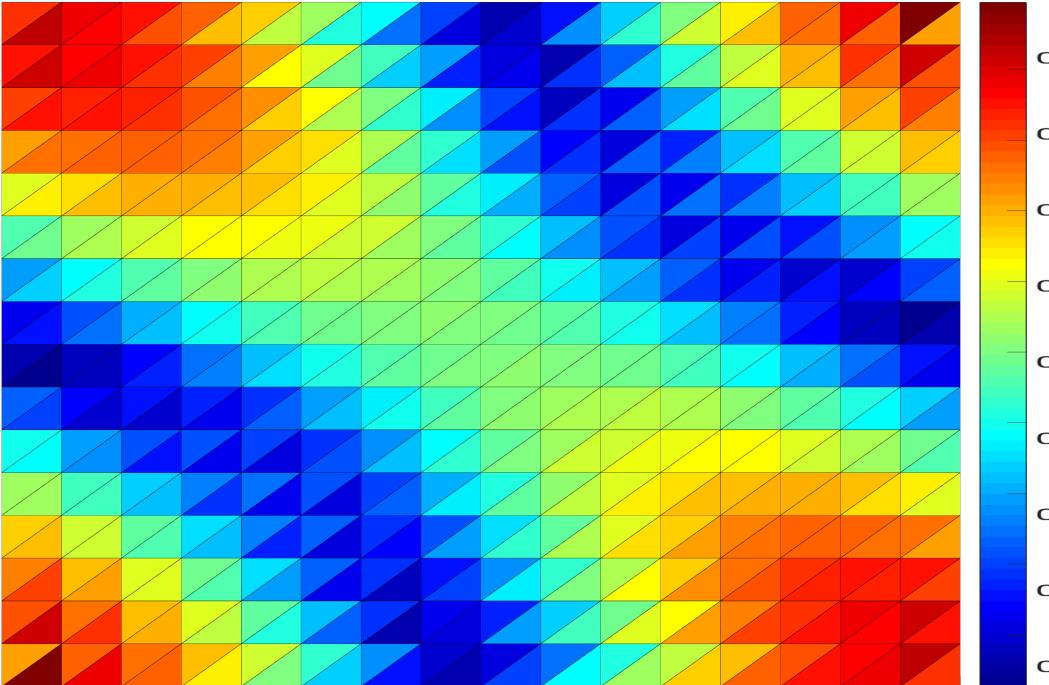
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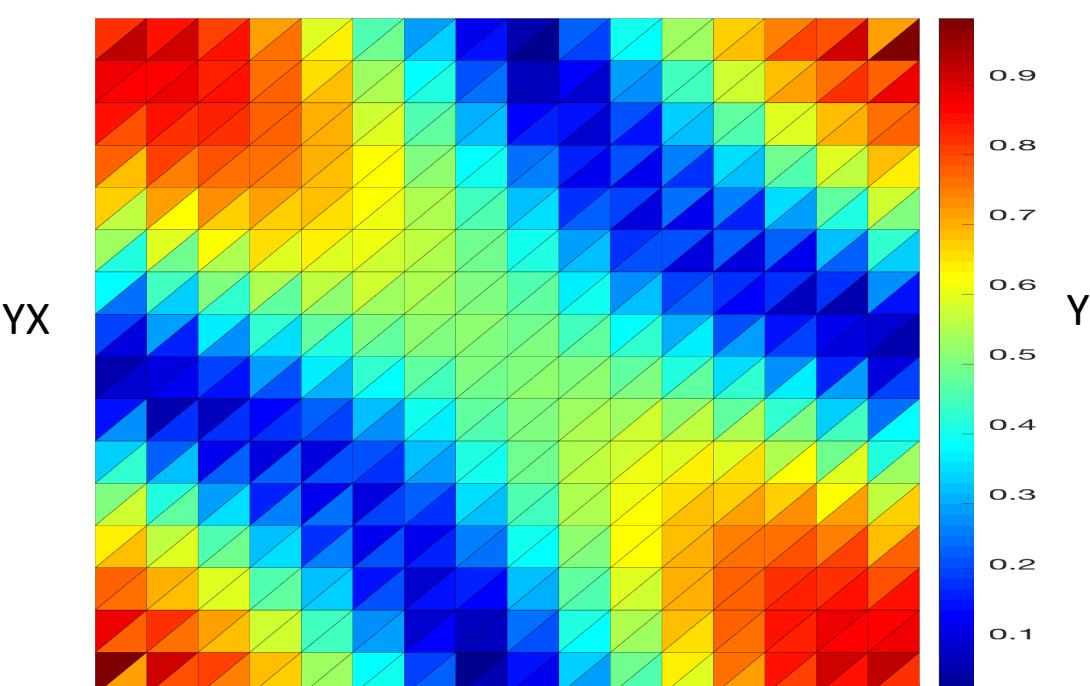
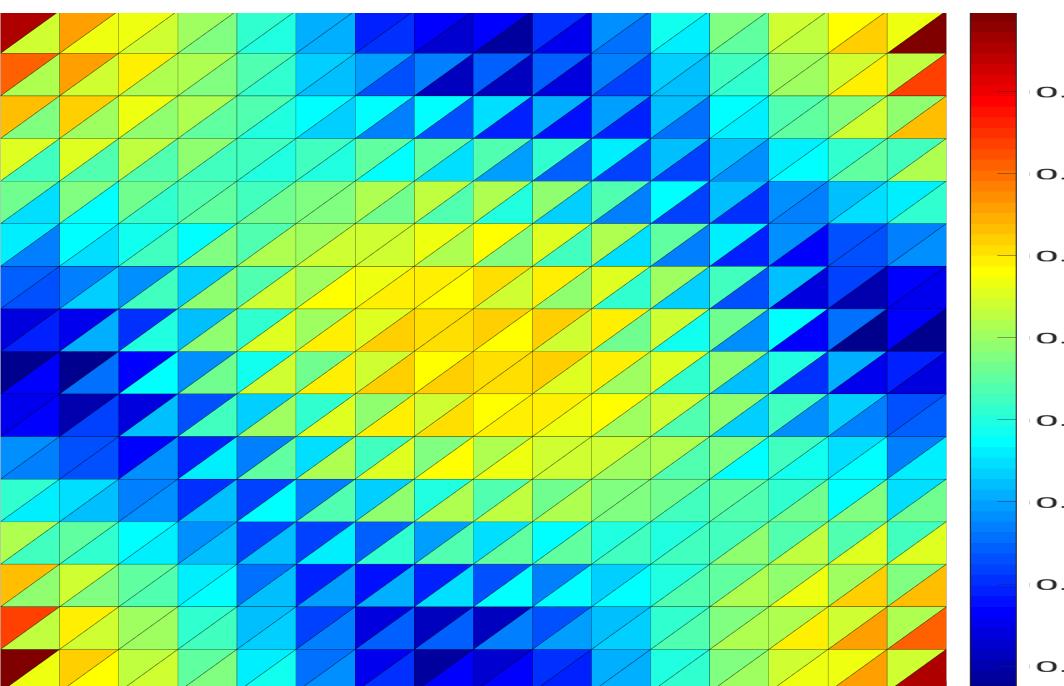
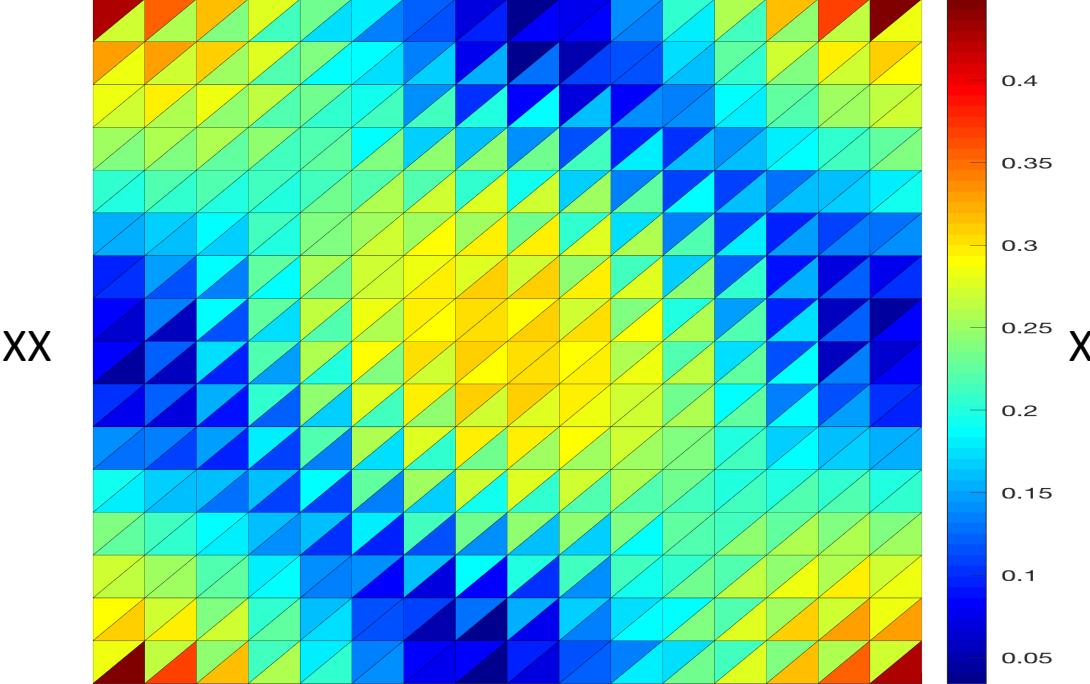
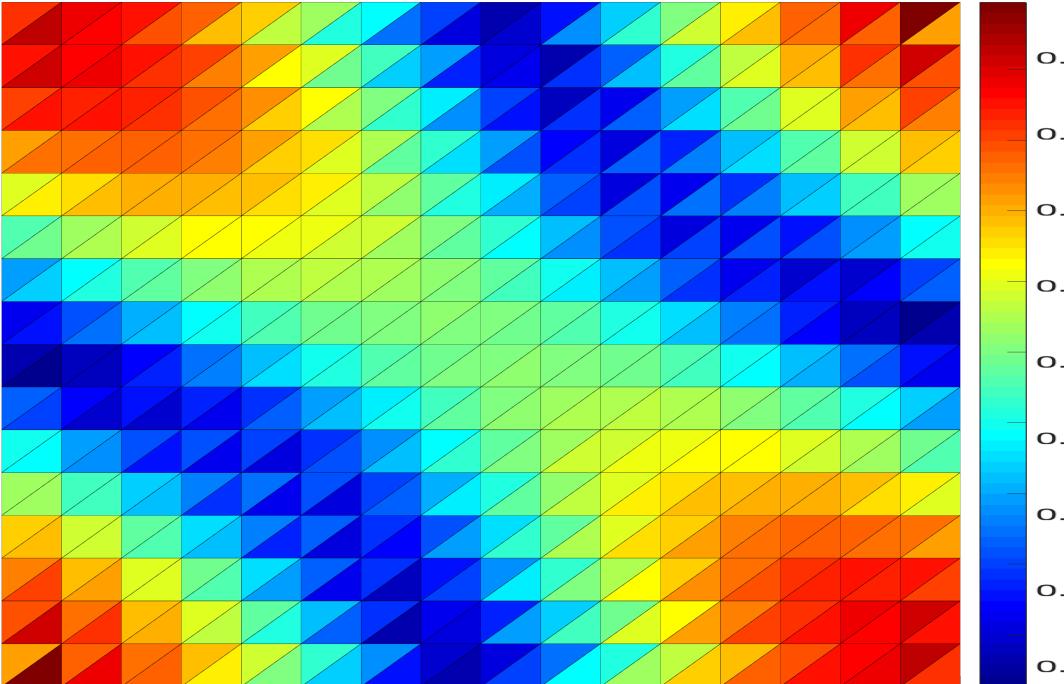


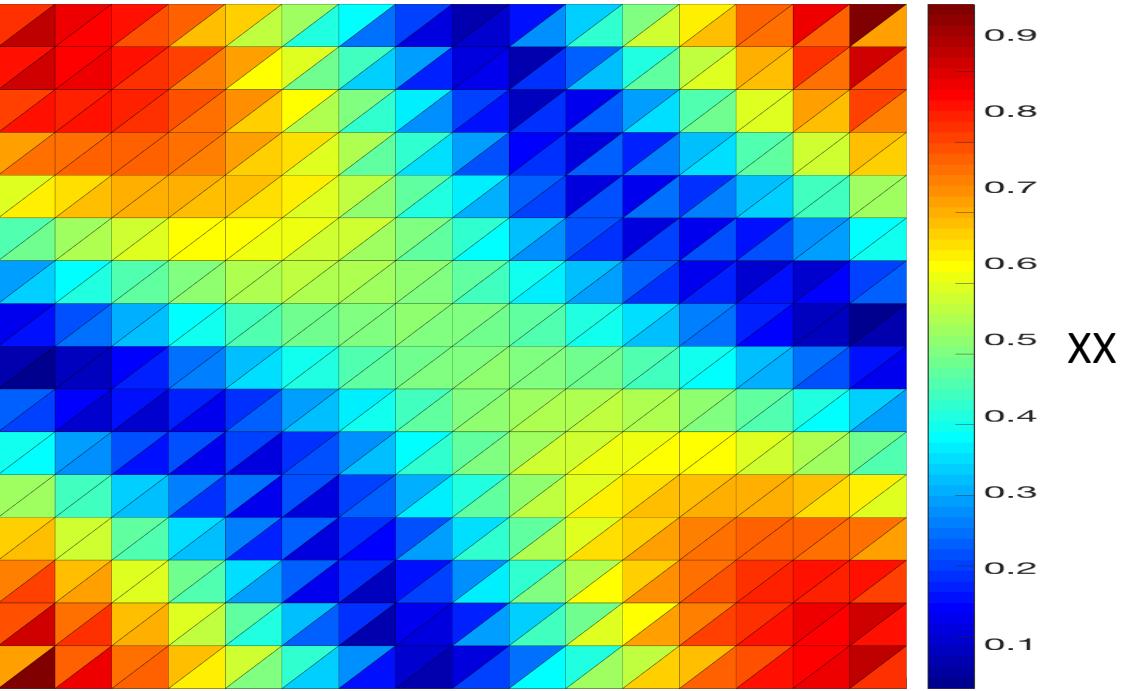




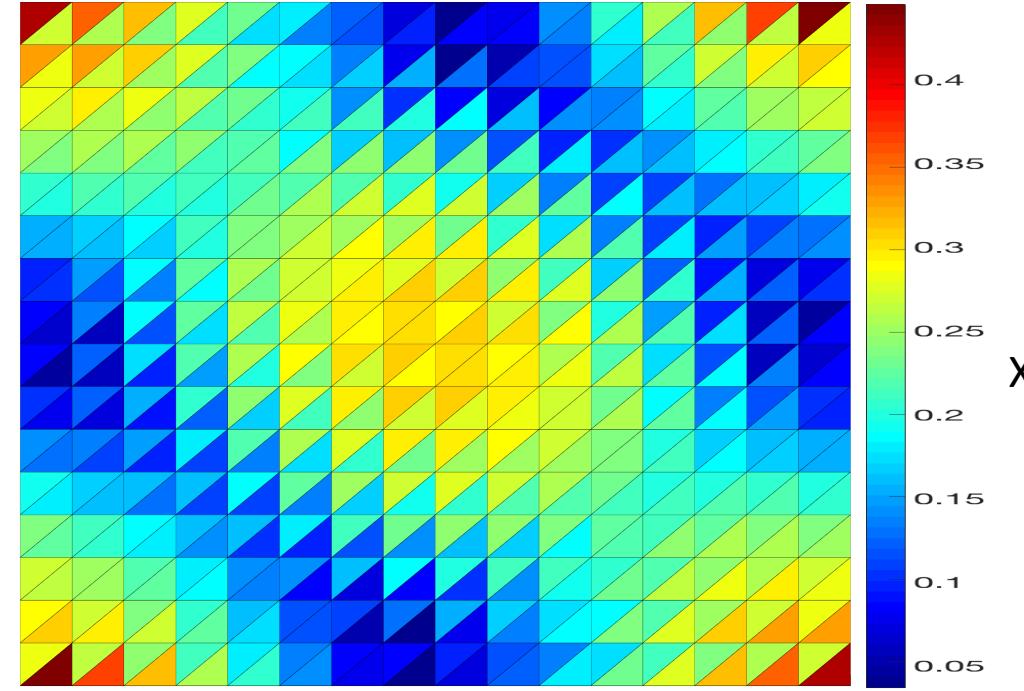




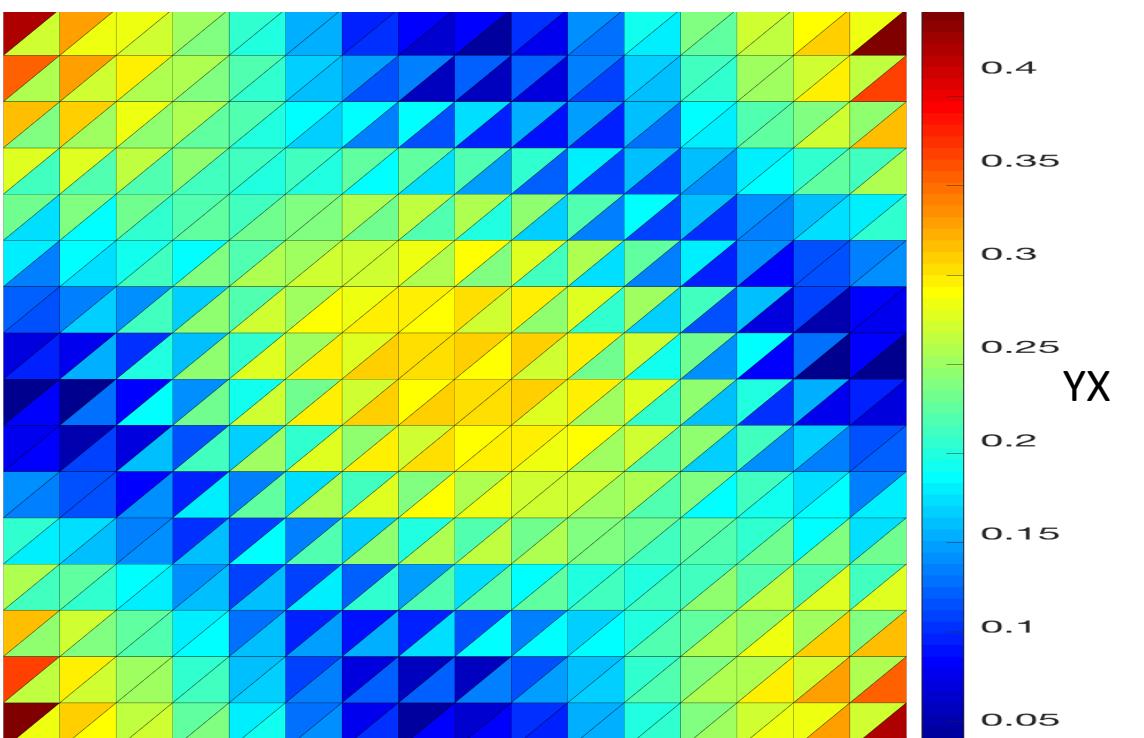




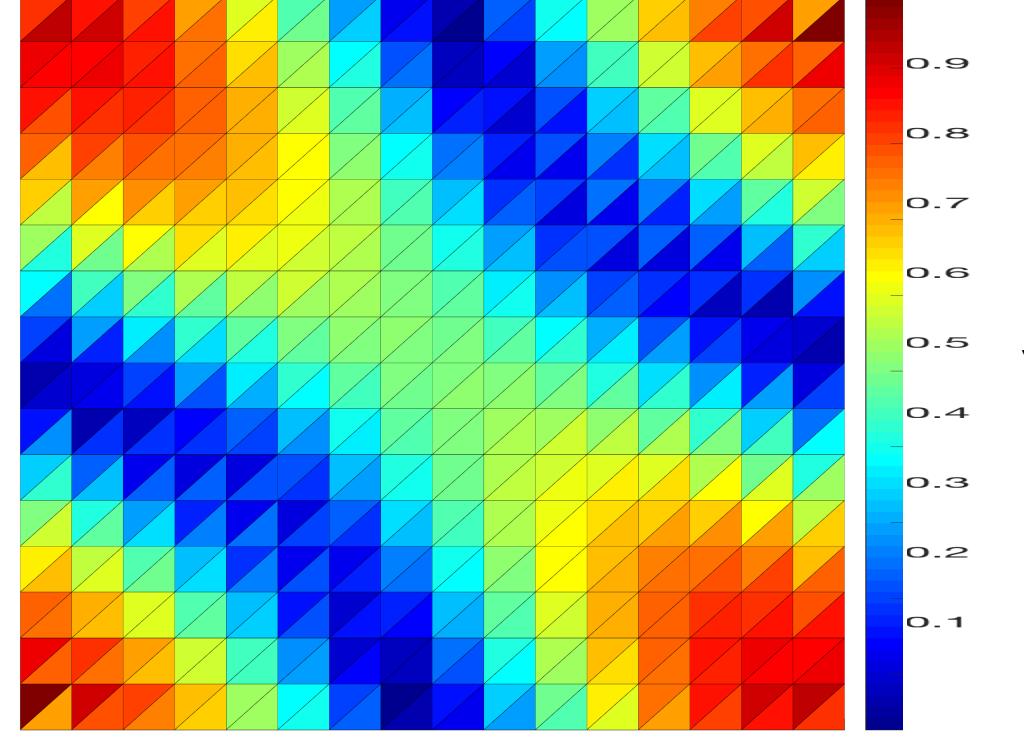
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