भारतीय प्रौद्योगिकी संस्थान गुवाहाटी
INDIAN INSTITUTE OF TECHNOLOGY GUWAHATI

MA 473: Computational Finance Lab

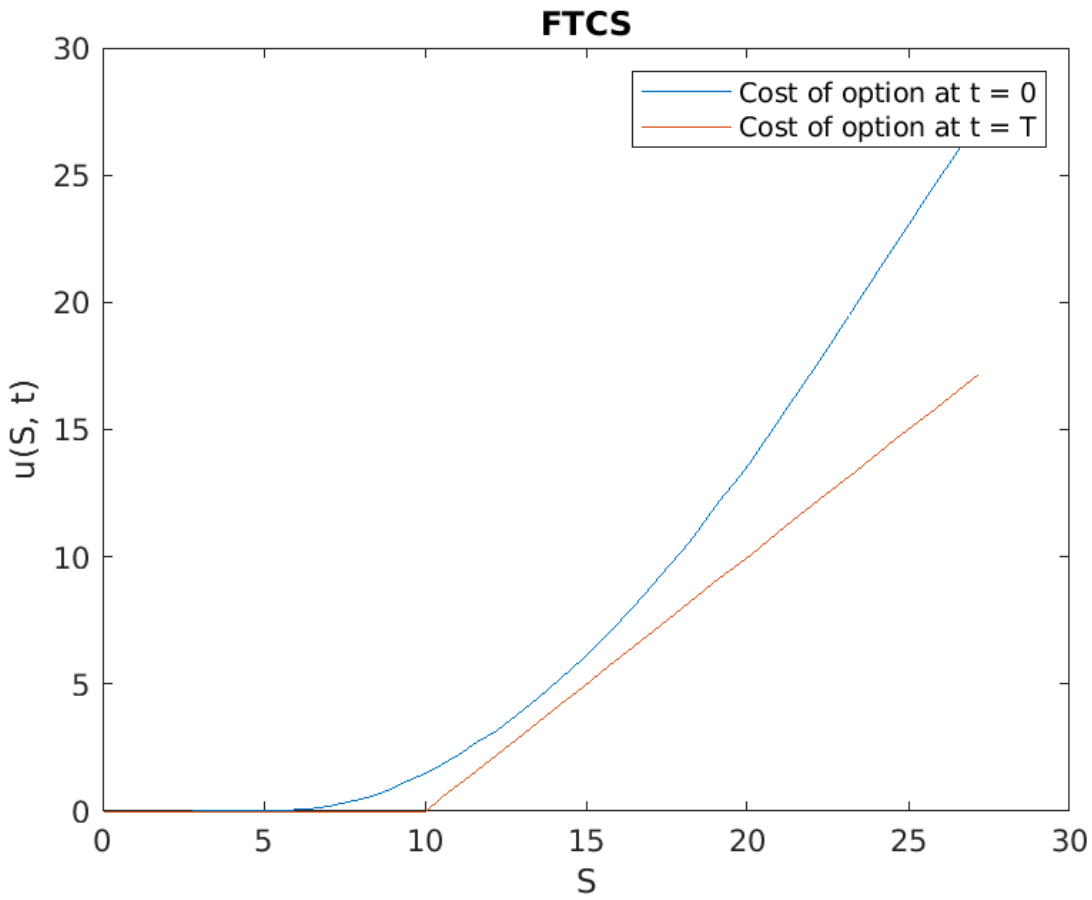
Lab 02

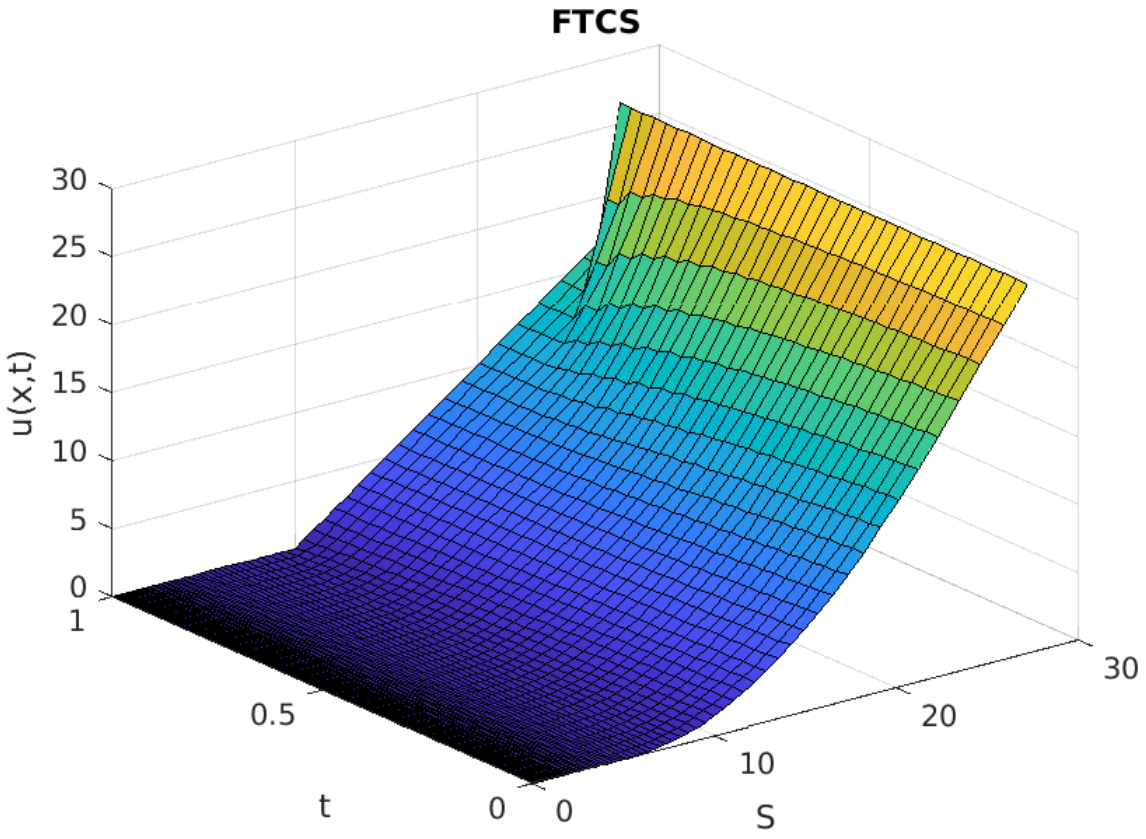
AB Satyaprakash (180123062)

22 Aug 2021

***NB**. For extreme values of S (or x) the error in the plots is mainly due to the error in computing the boundary condition because we don't have x = ∞ and −∞ as required.*

Question 01.




FTCS
u(x,t)
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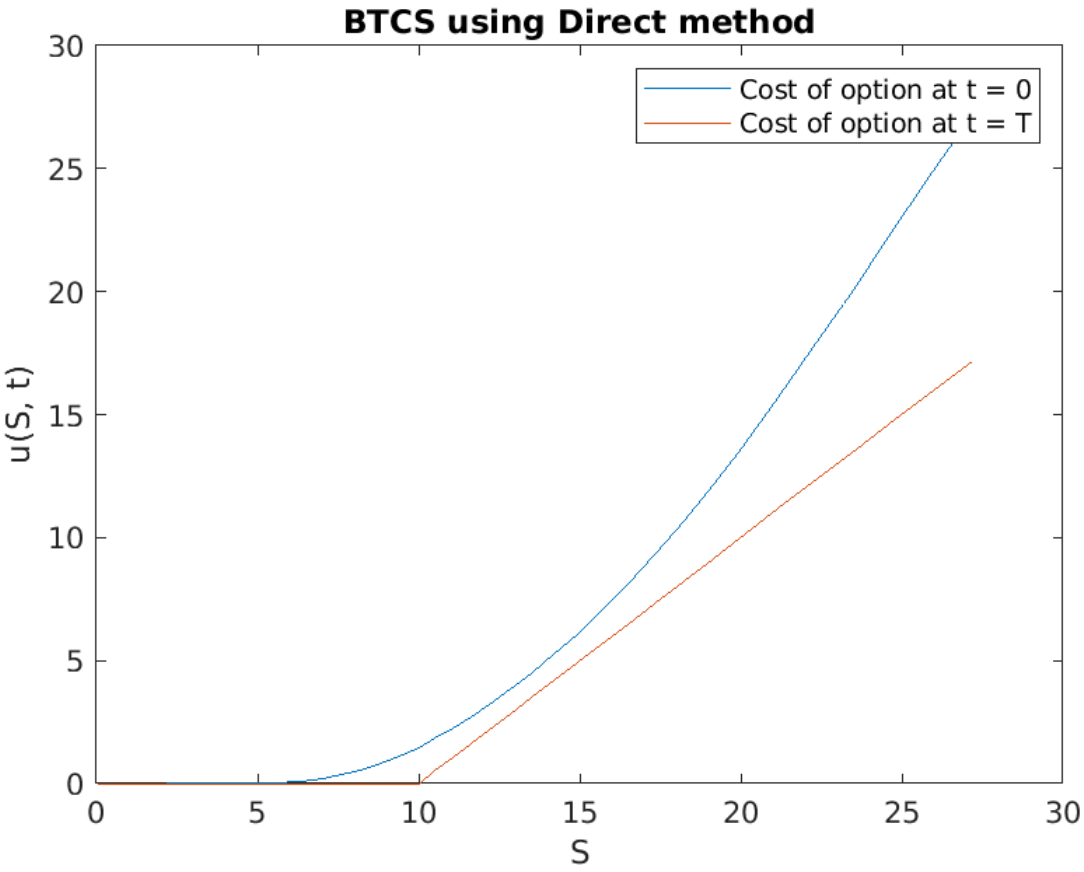
BTCS using Direct method
Cost of option at t = 0
Cost of option at t = T
u(S, t)
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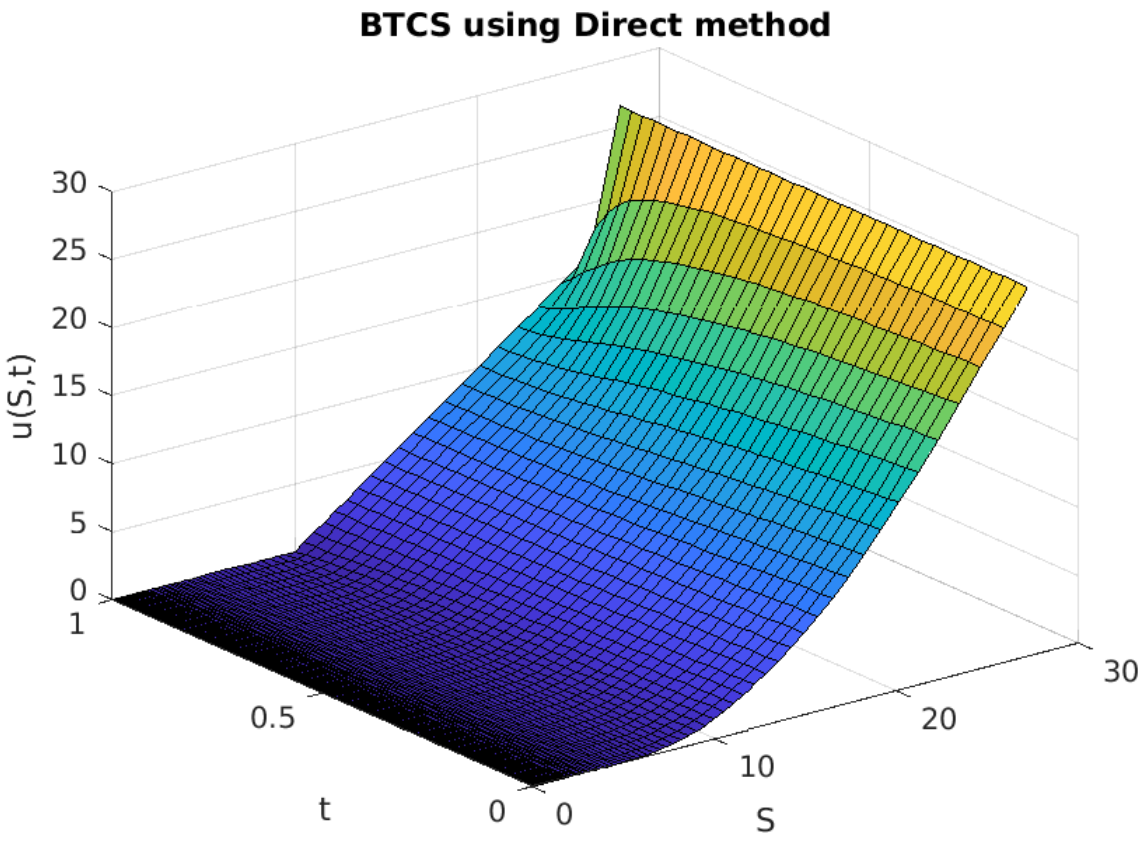
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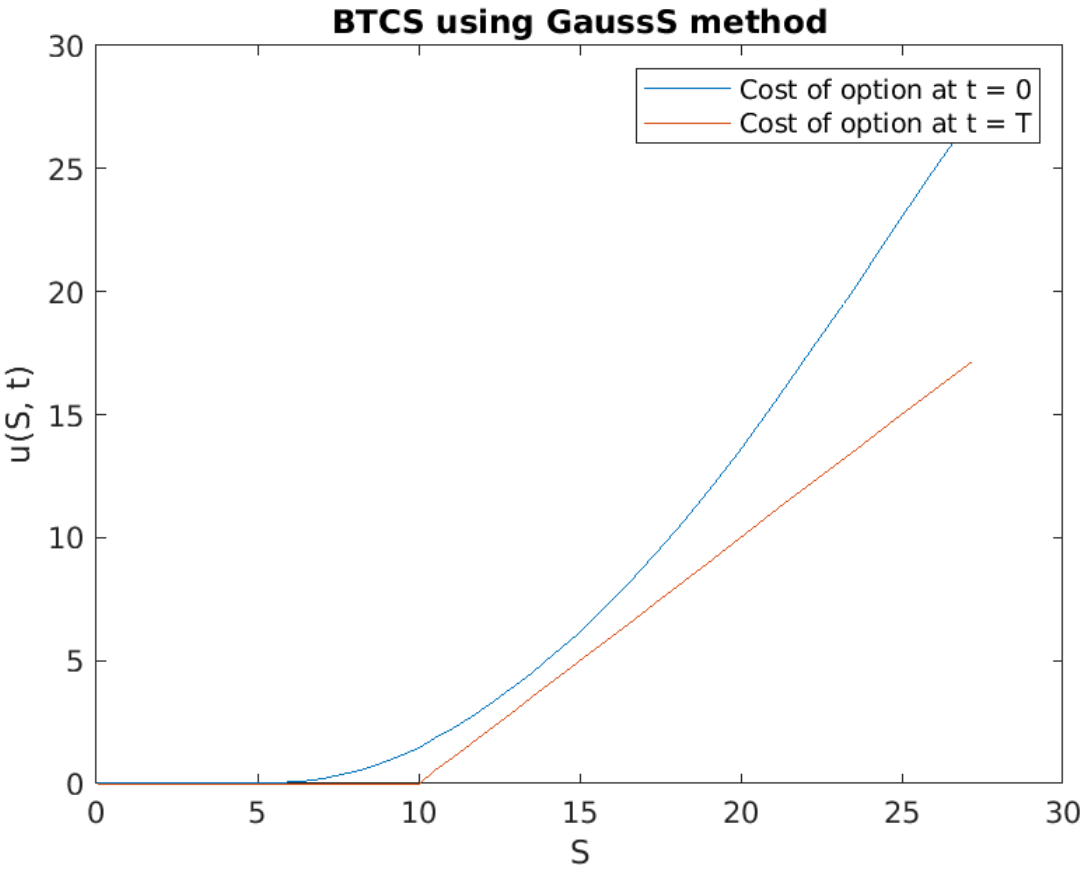
BTCS using GaussS method
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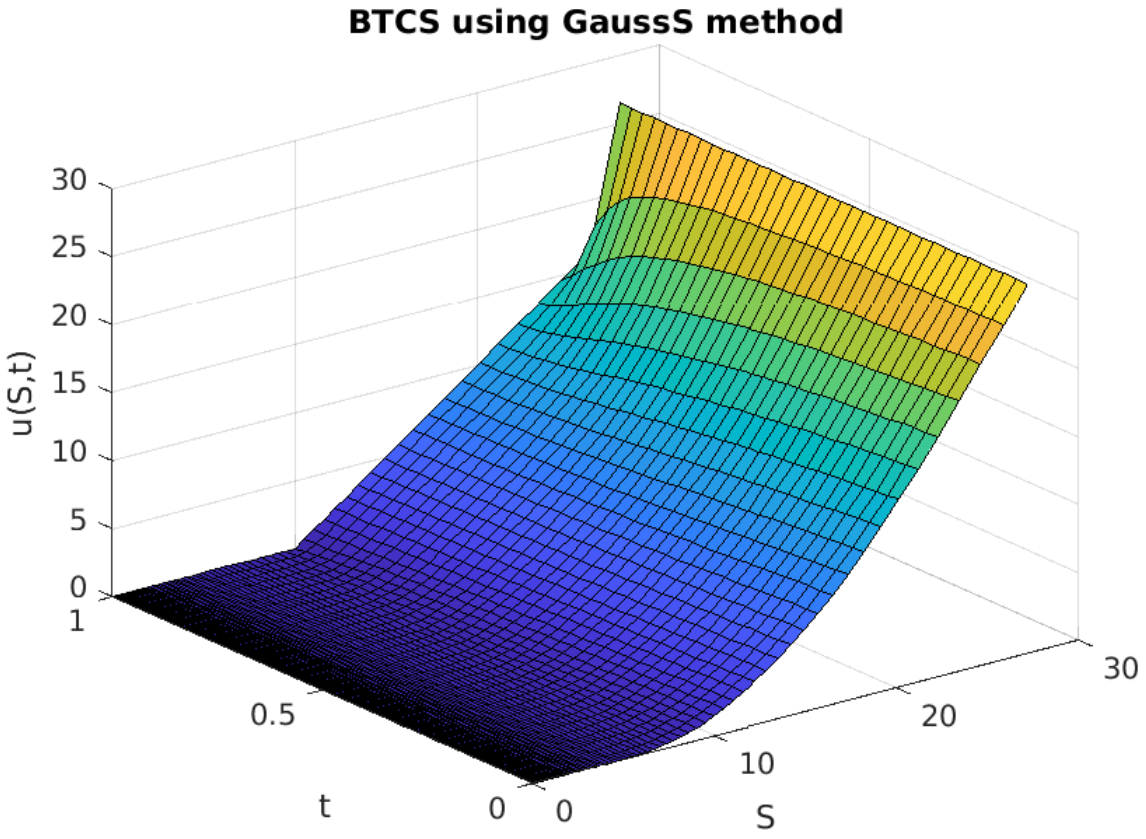
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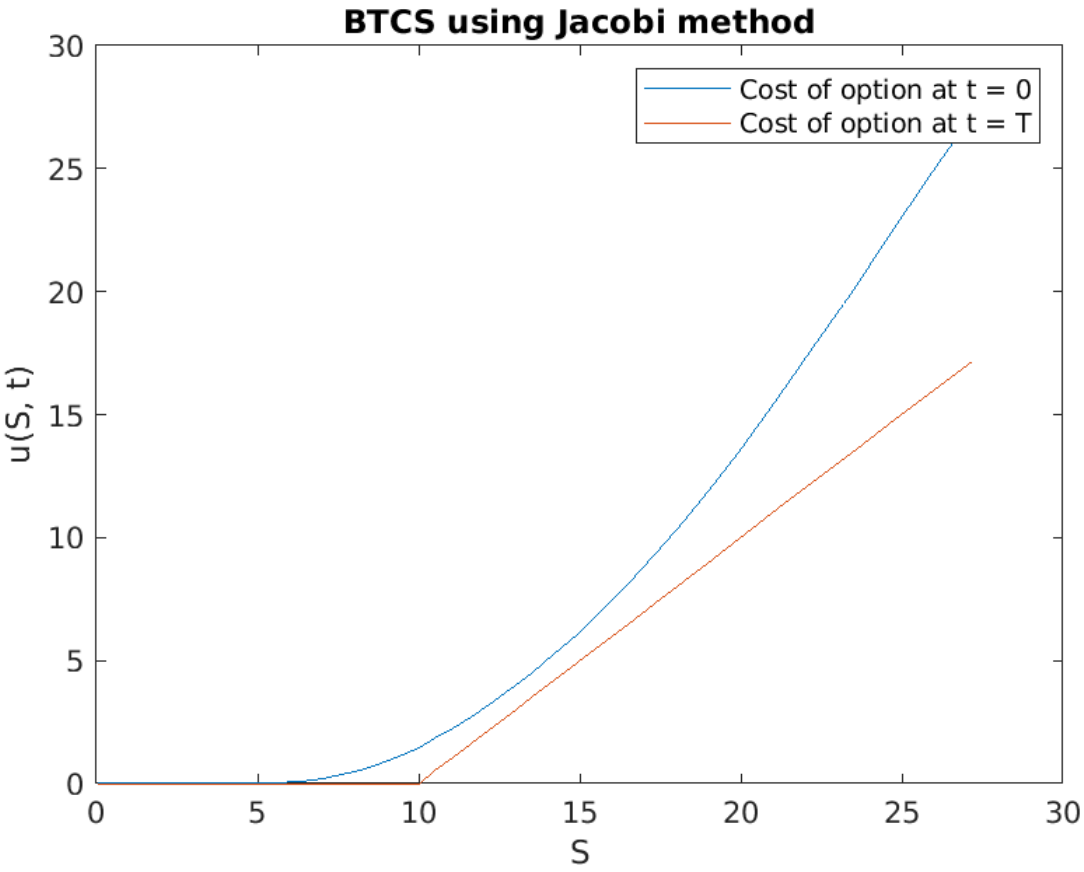
BTCS using Jacobi method
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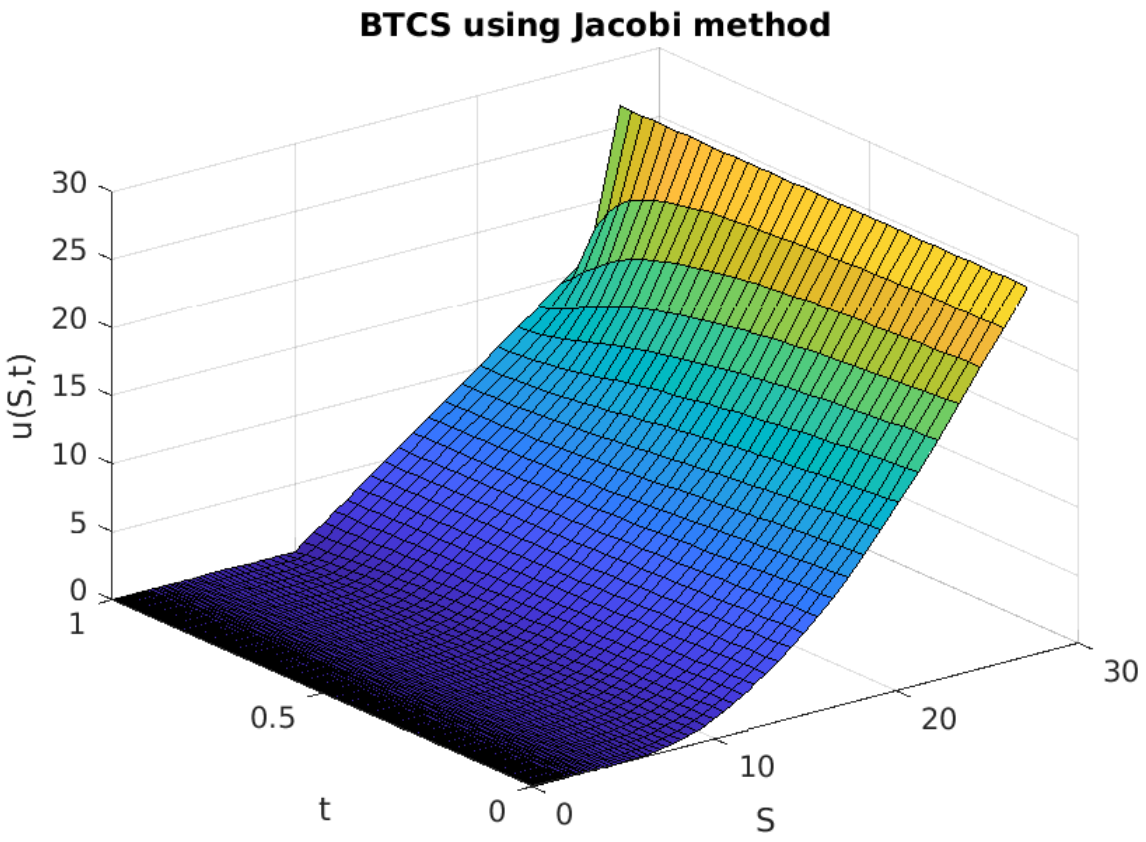
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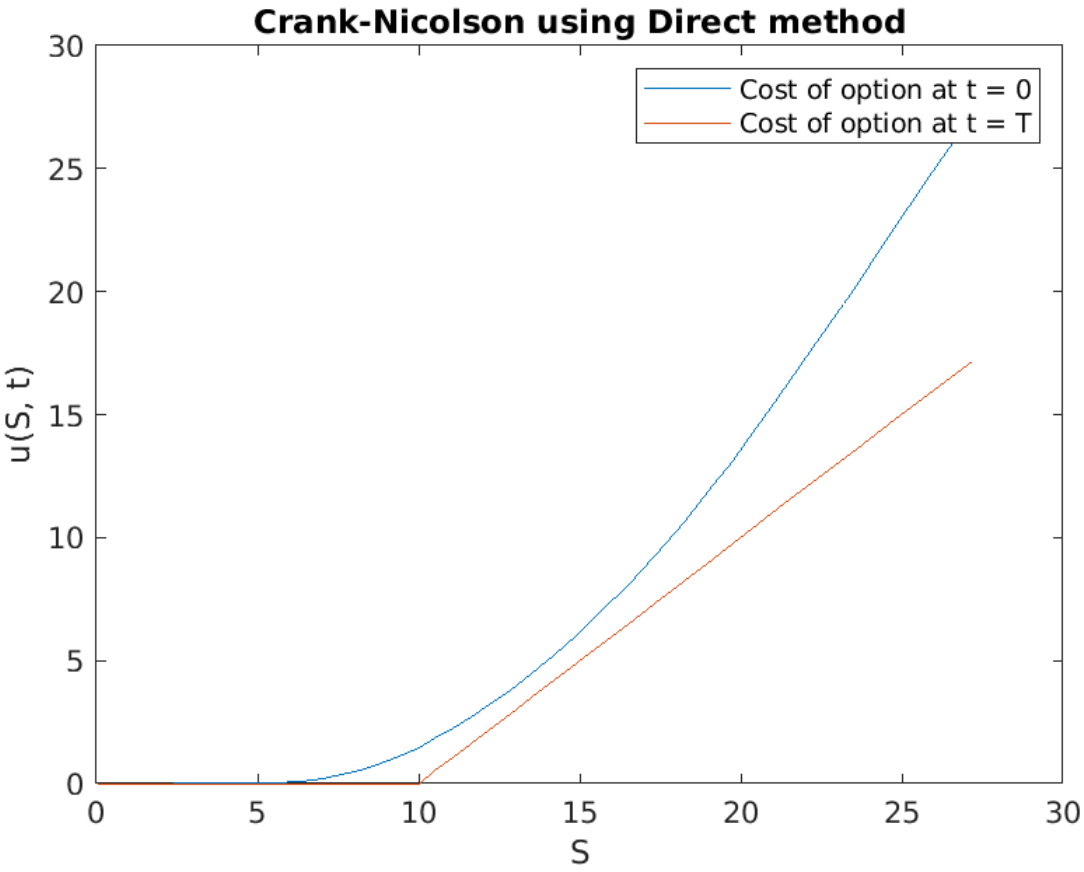
Crank-Nicolson using Direct method
Cost of option at t = 0
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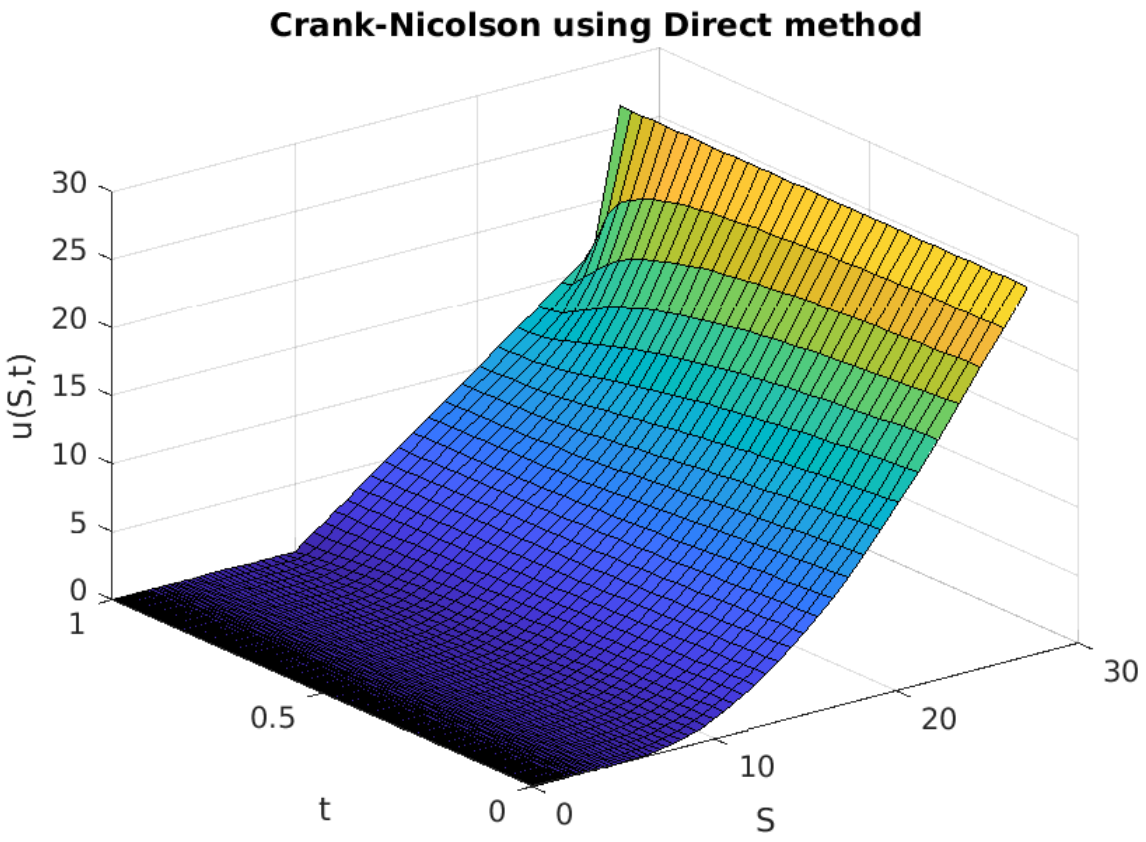
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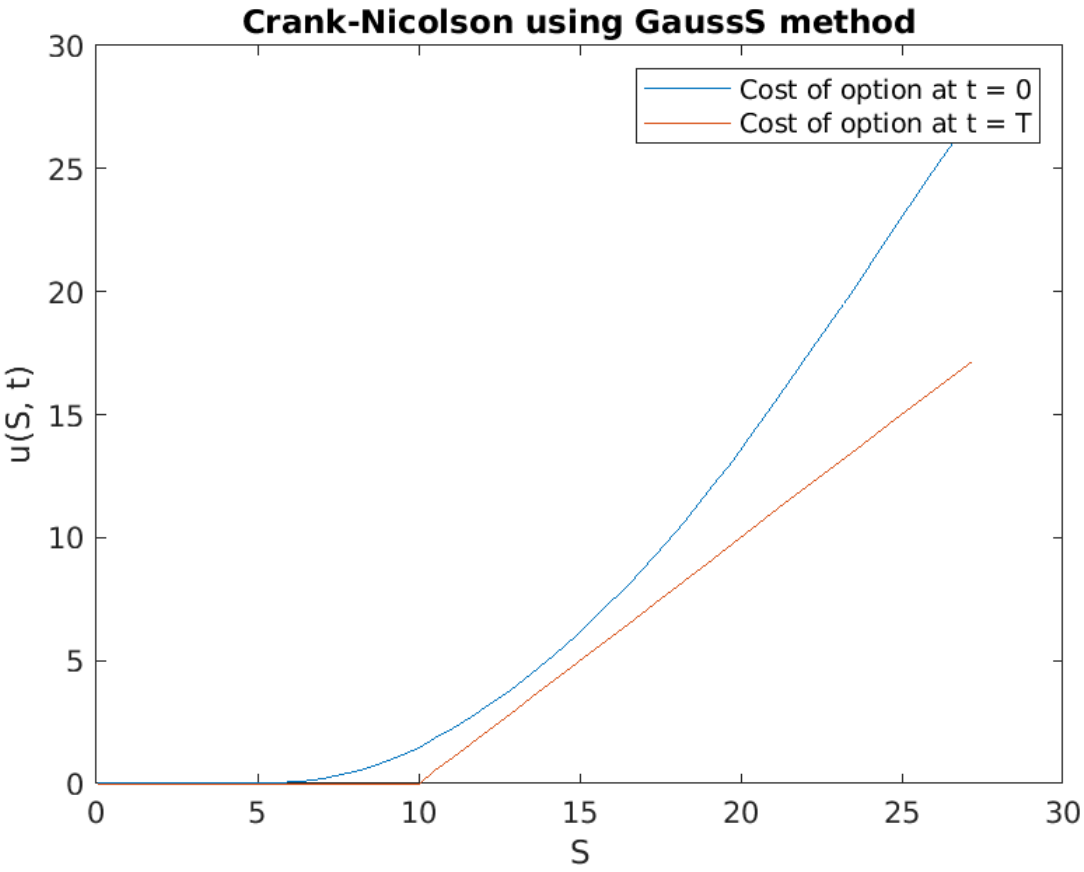
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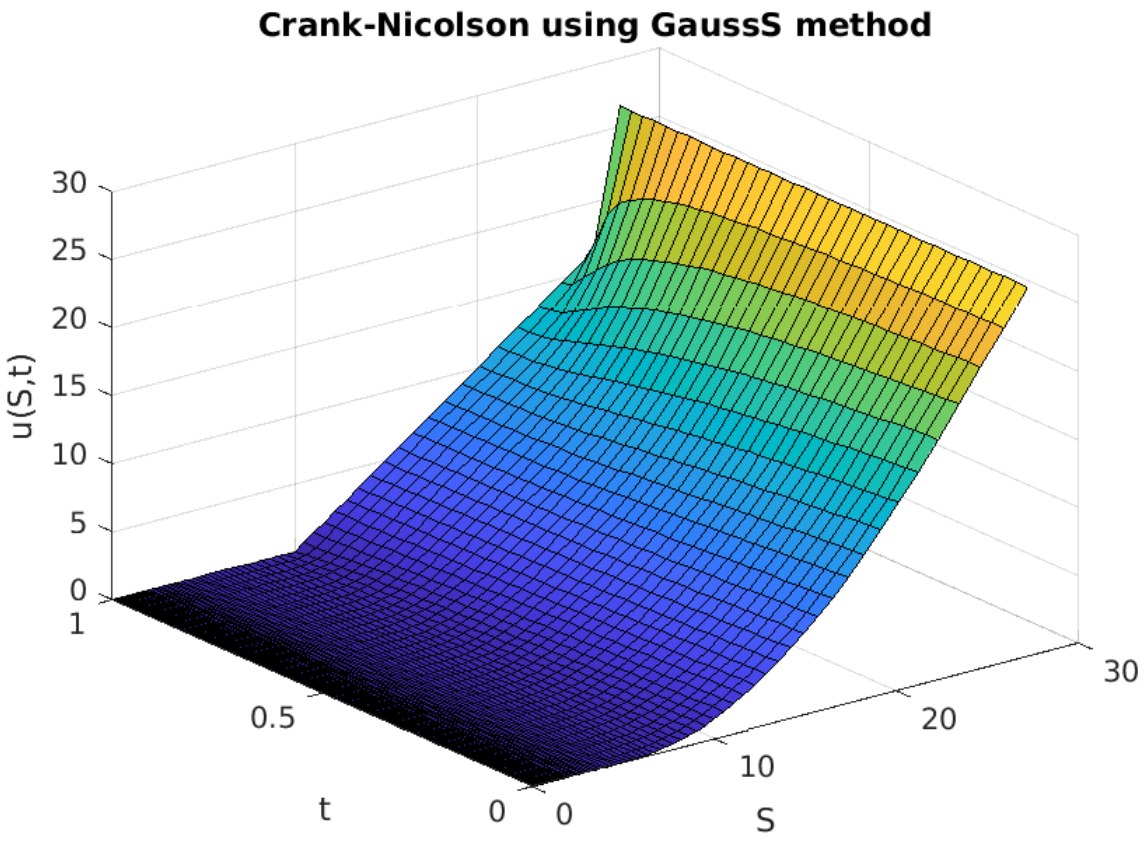
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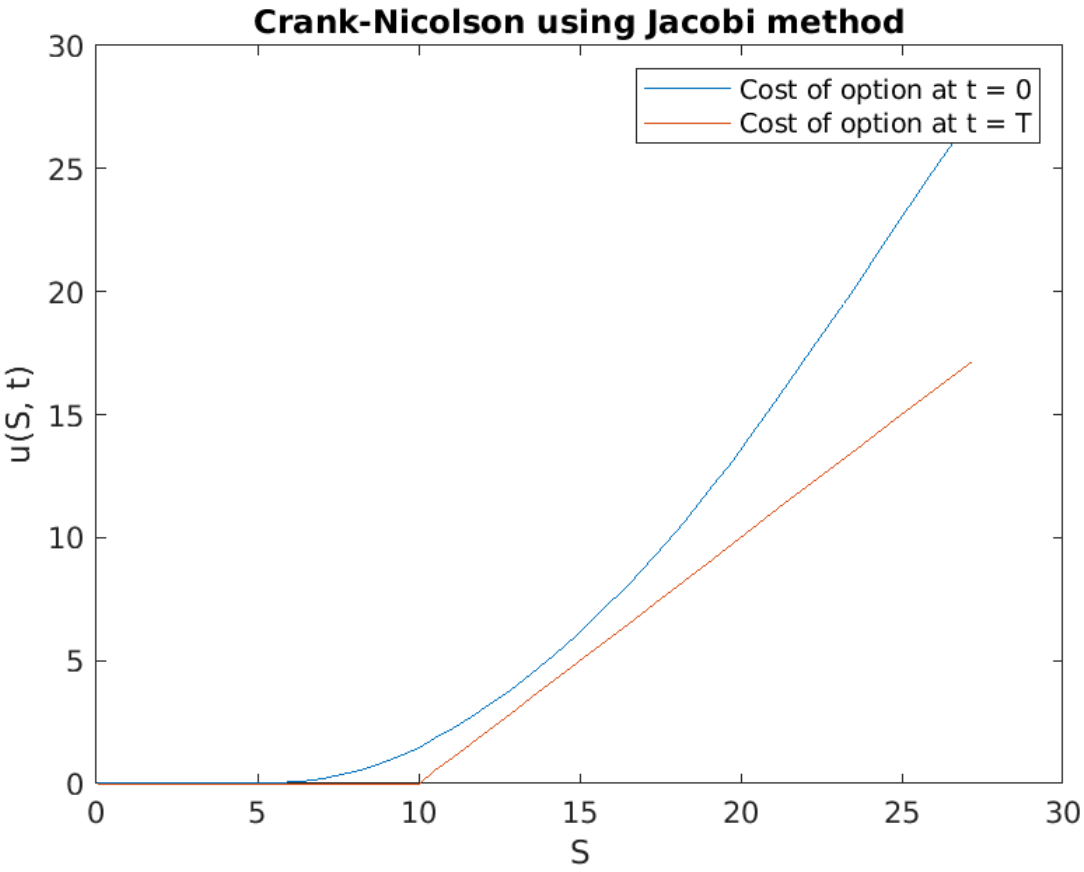
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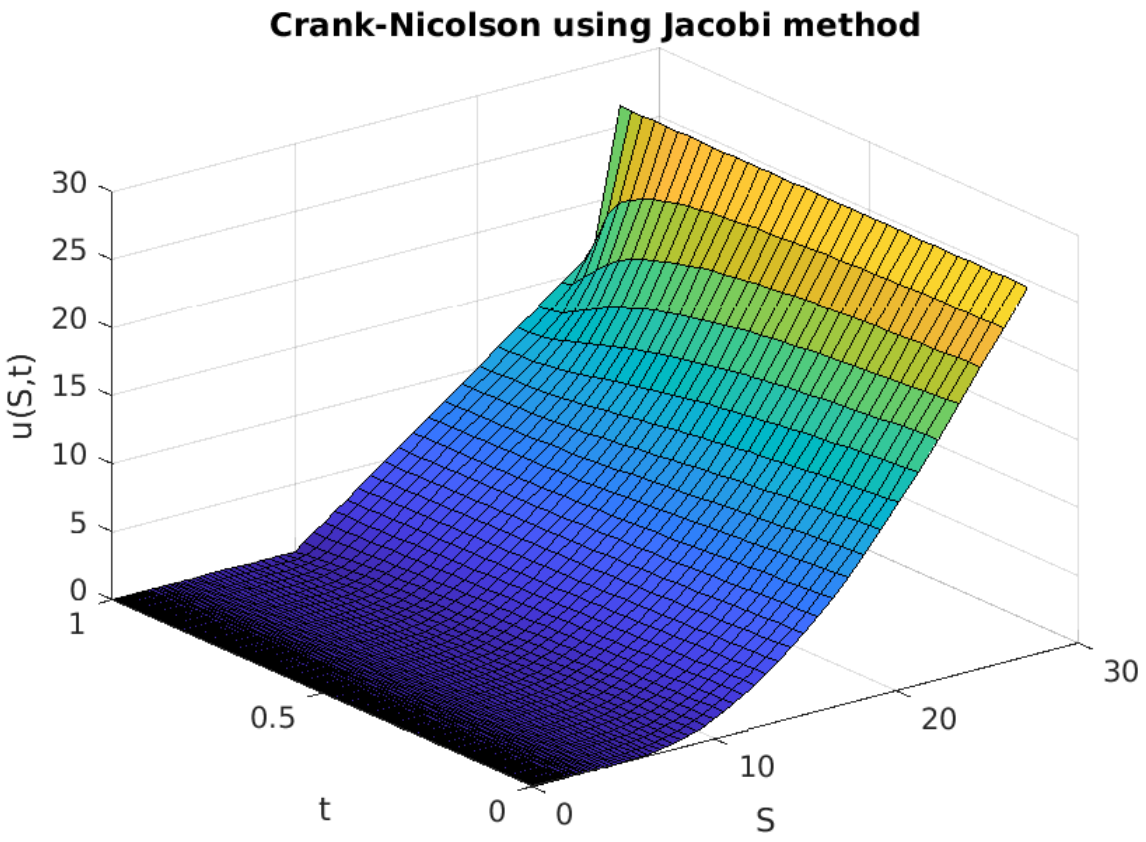
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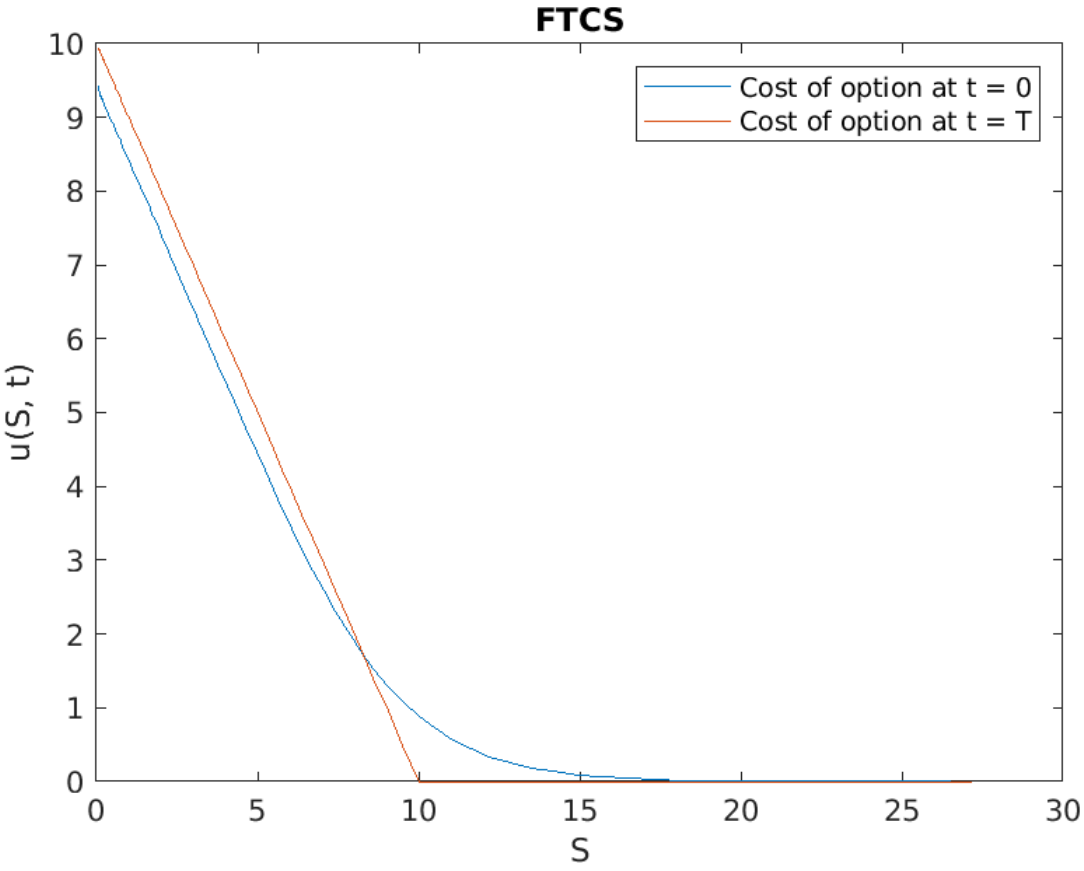
Question 02.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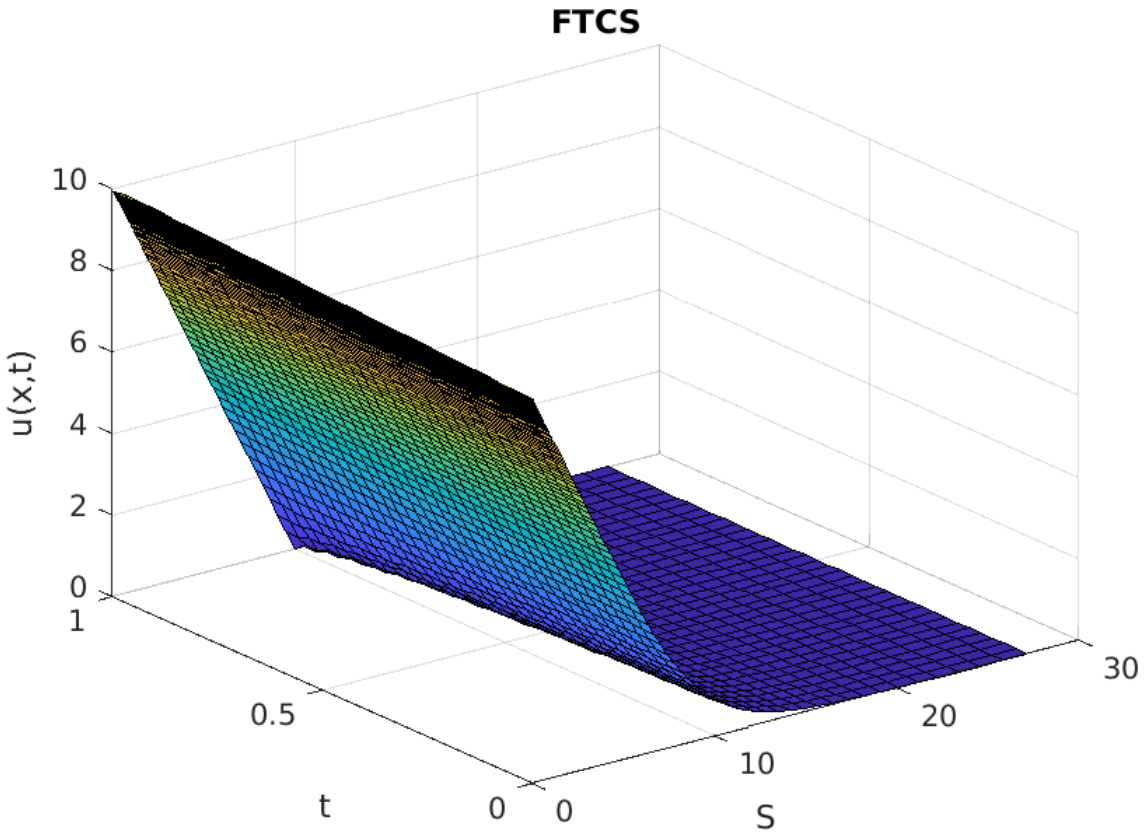
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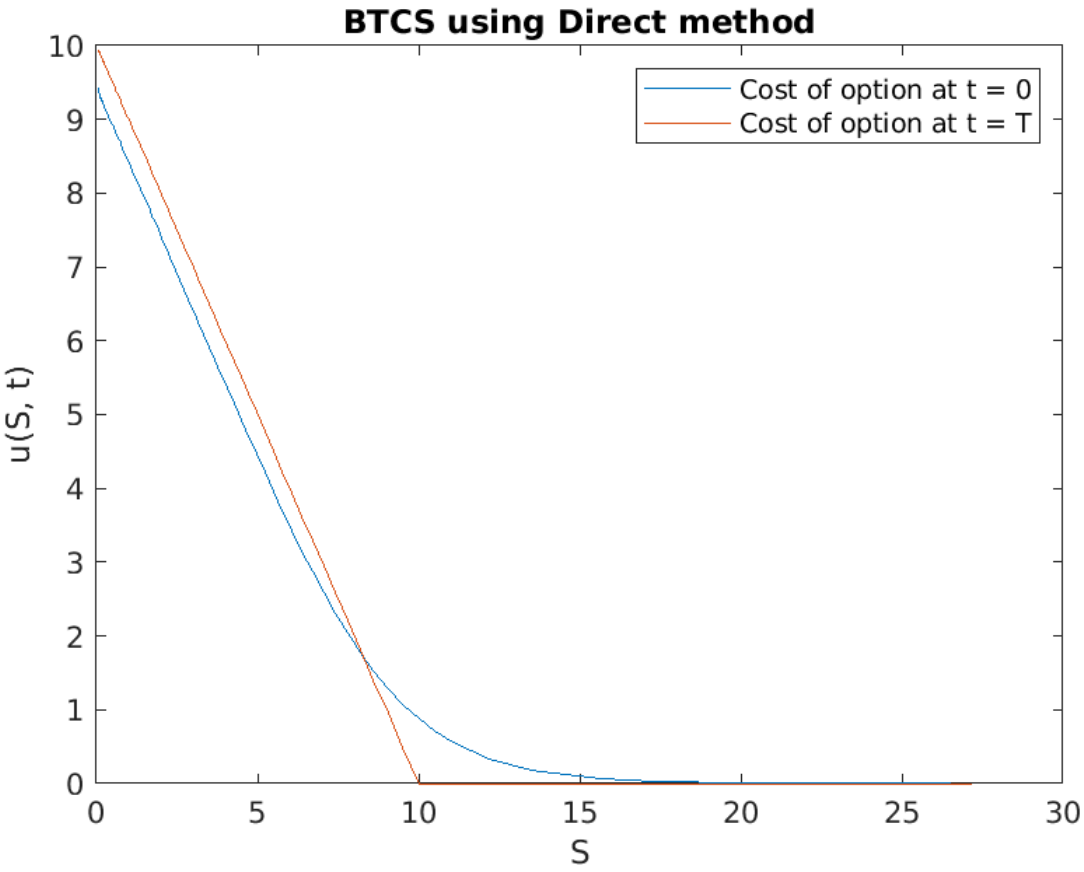
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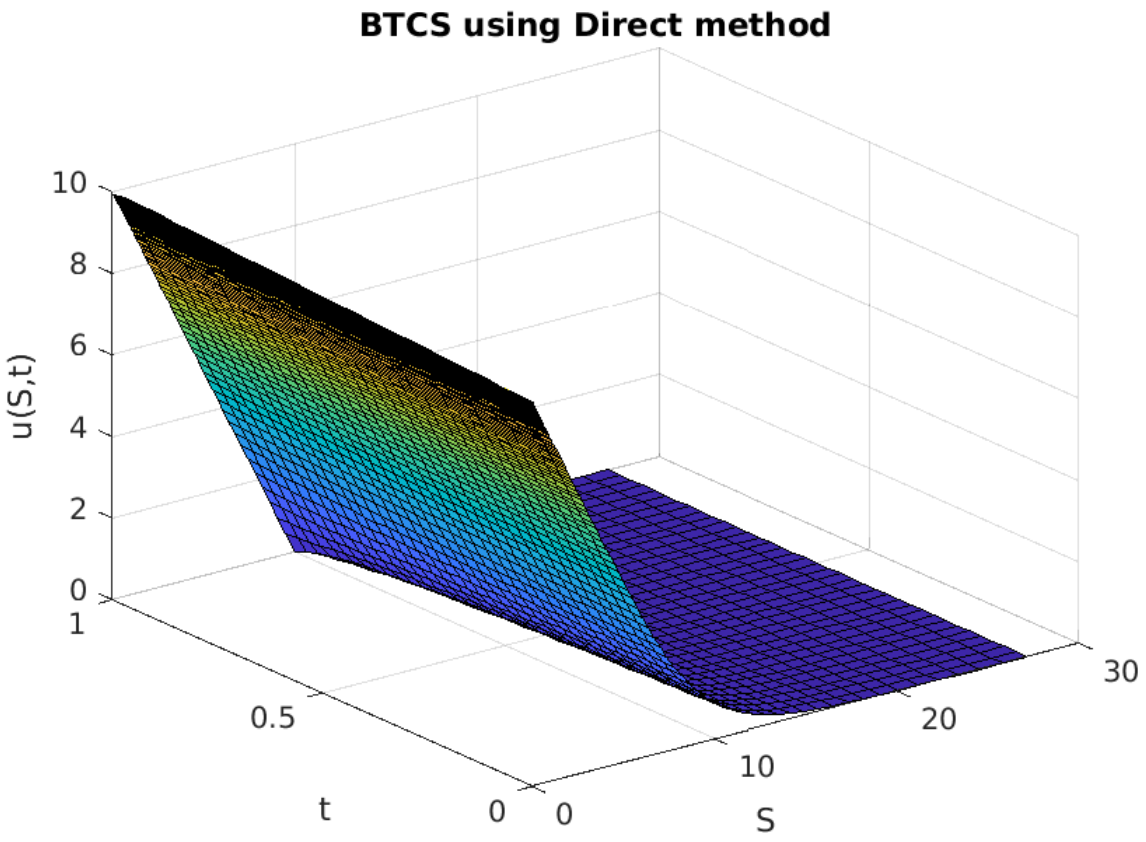
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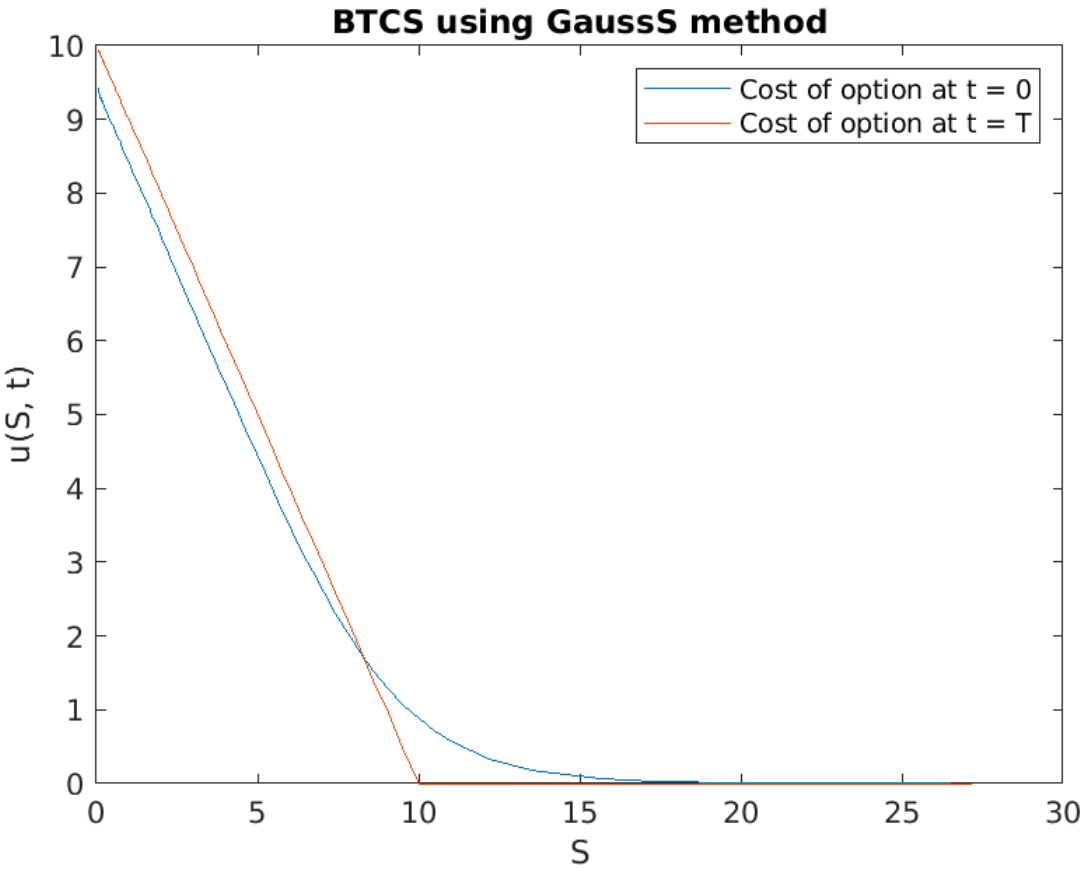
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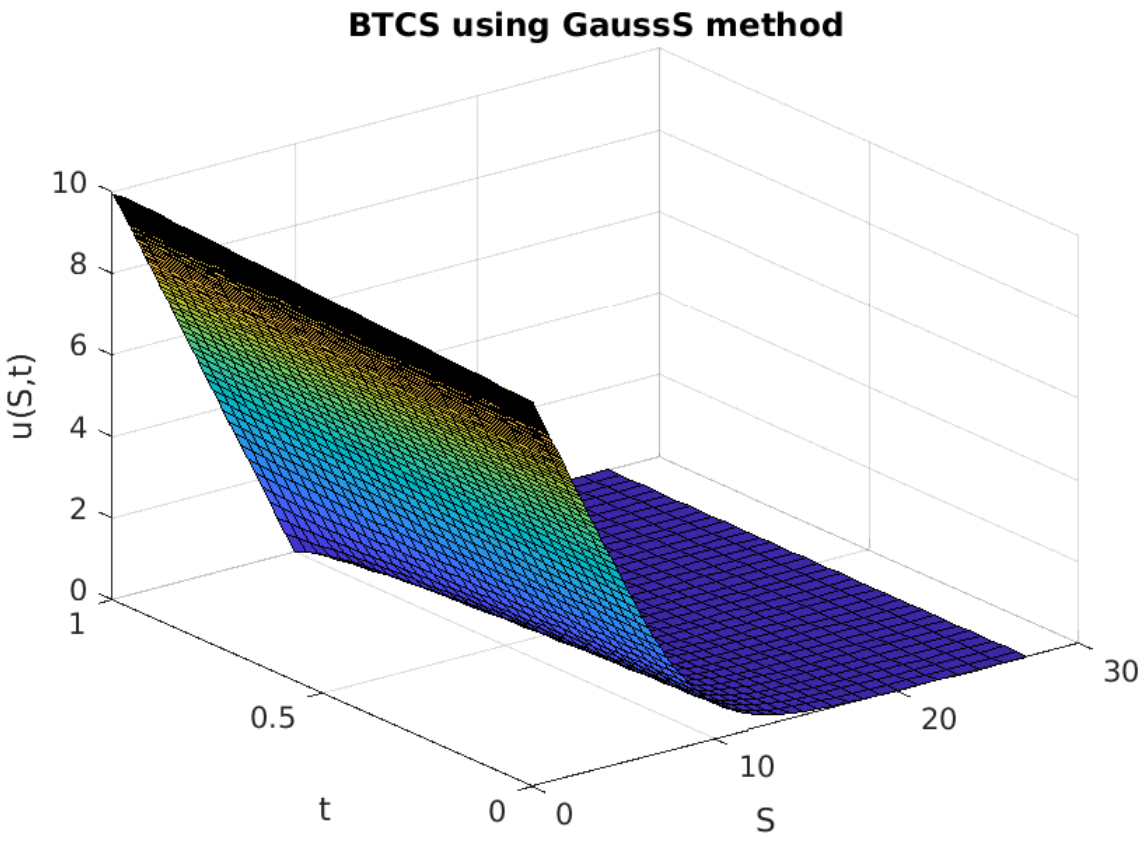
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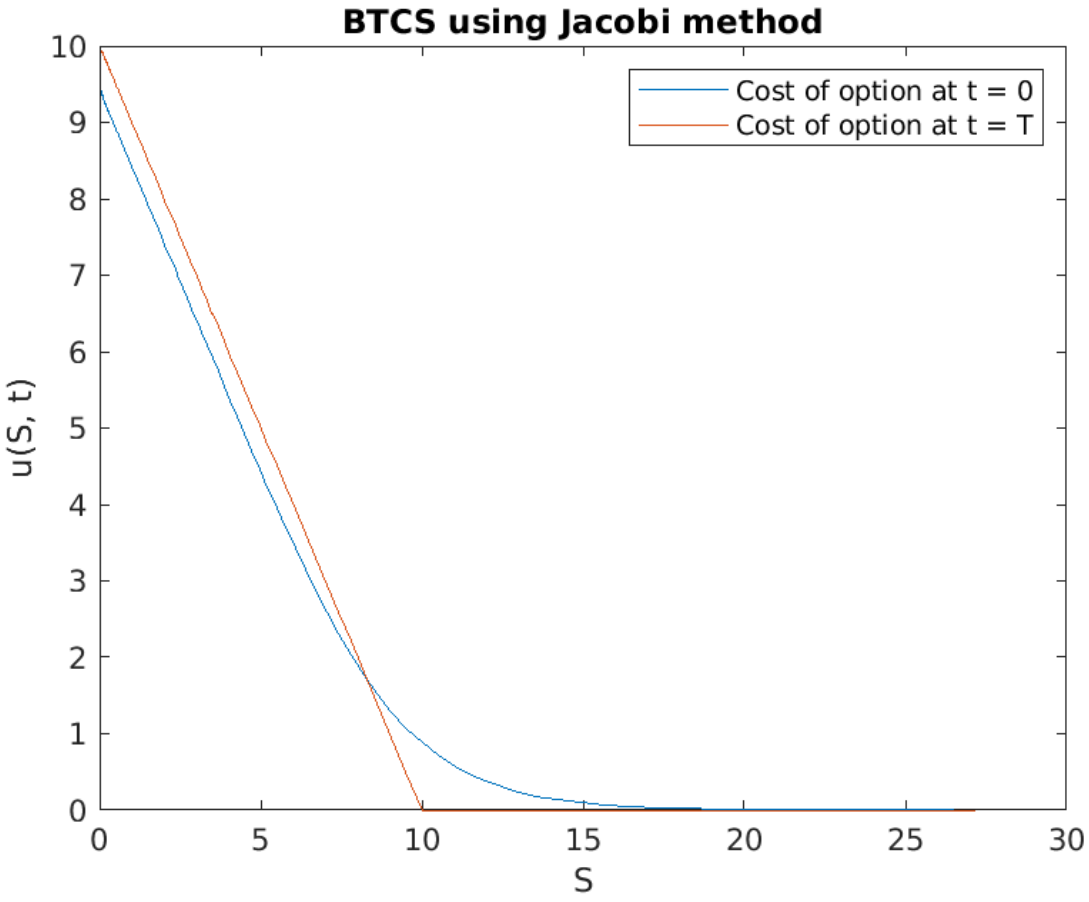
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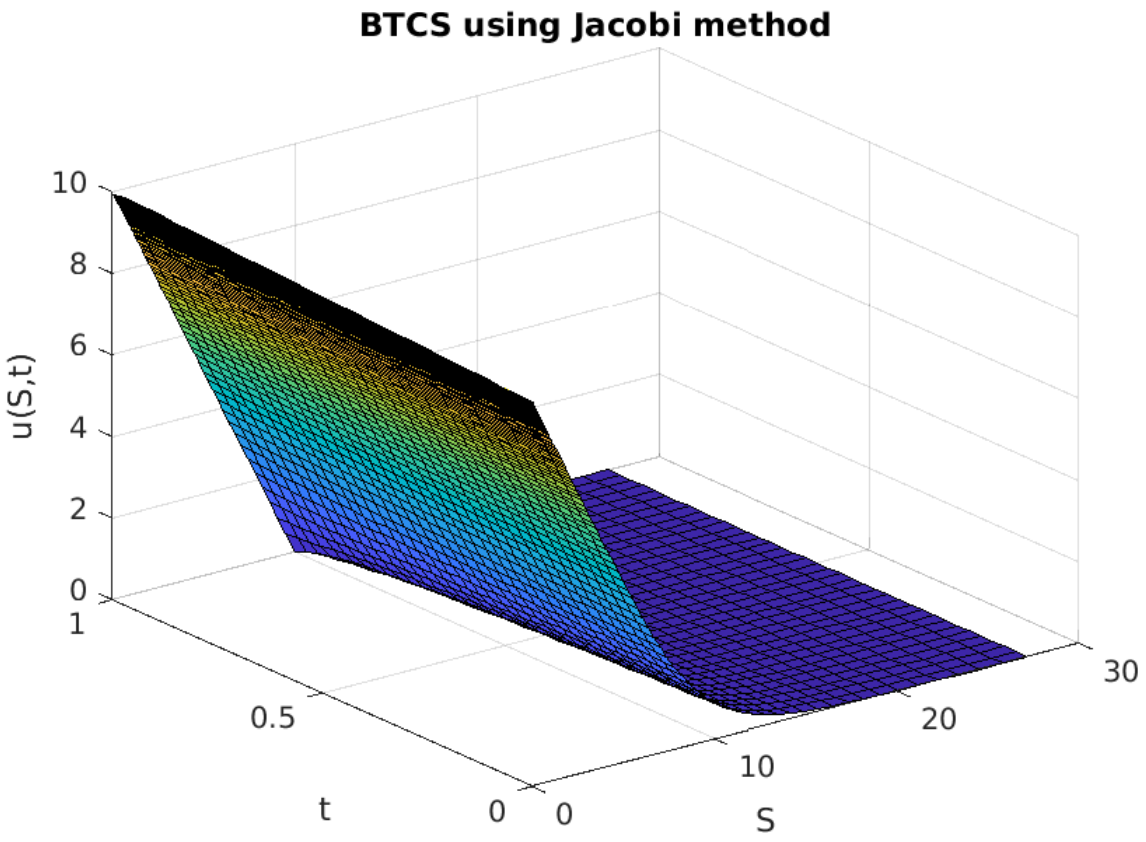
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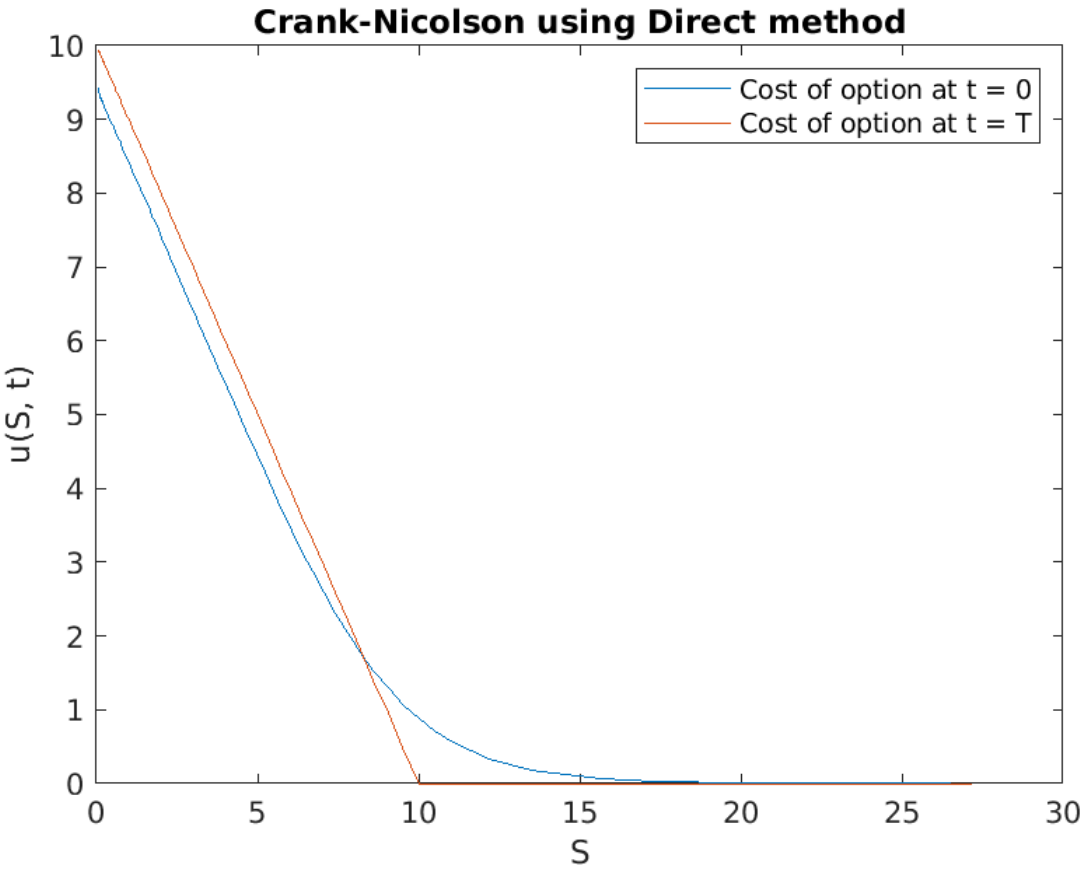
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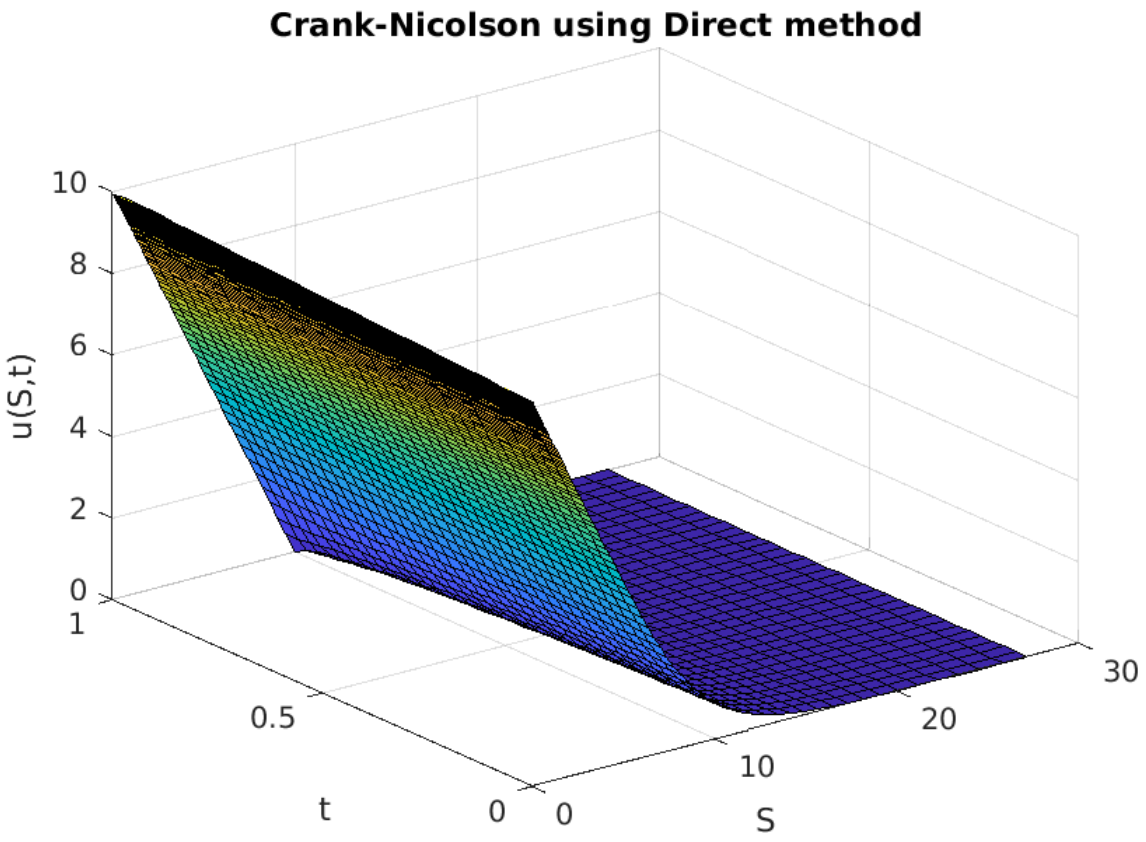
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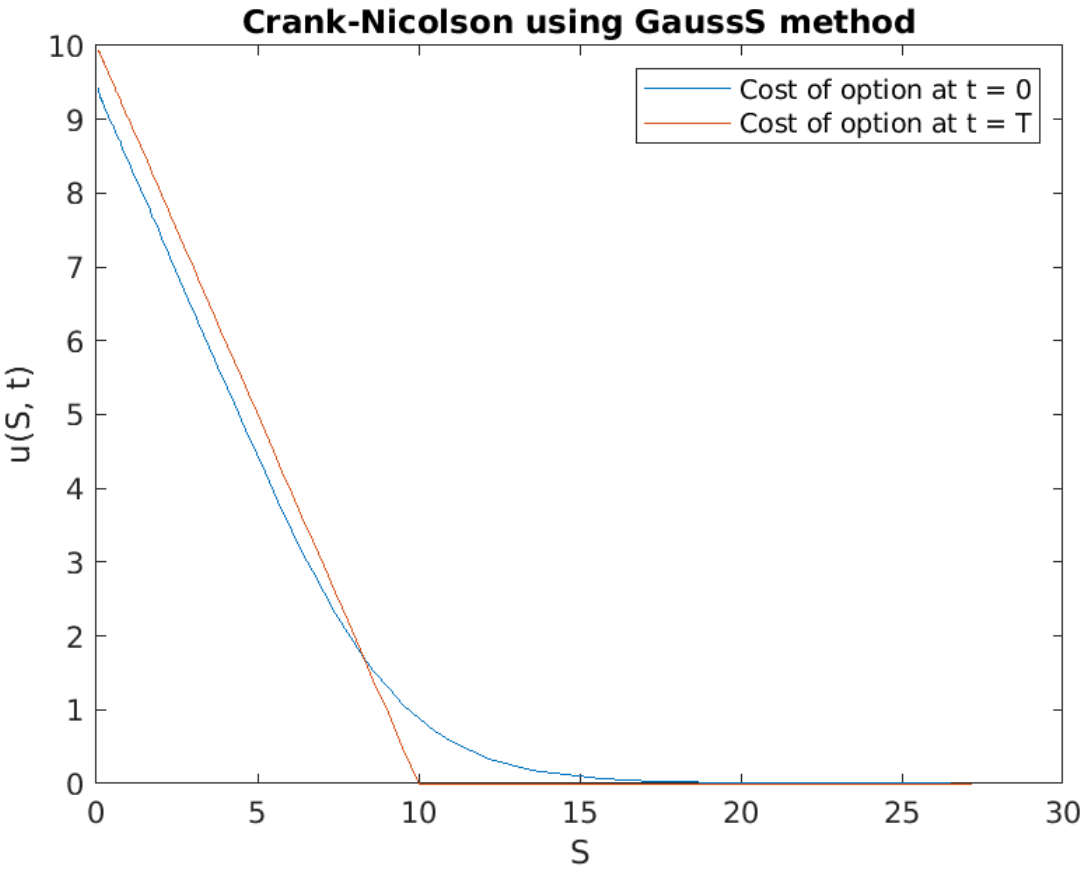
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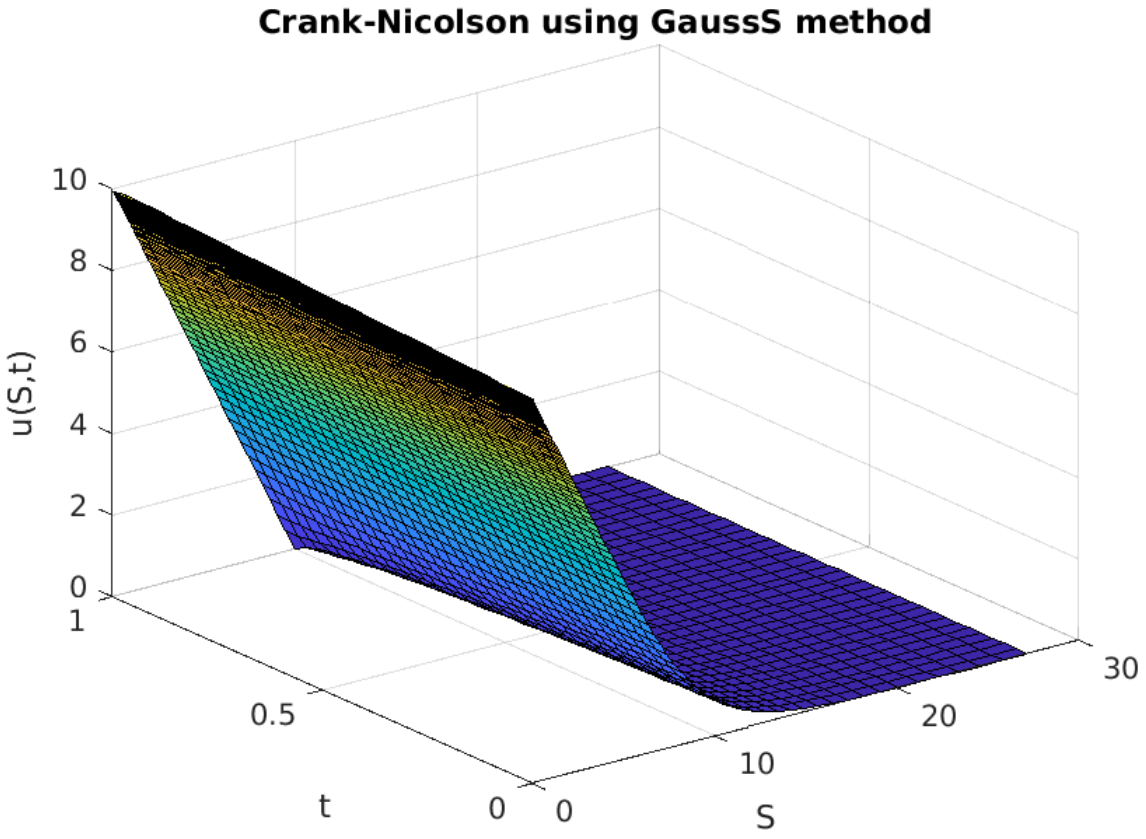
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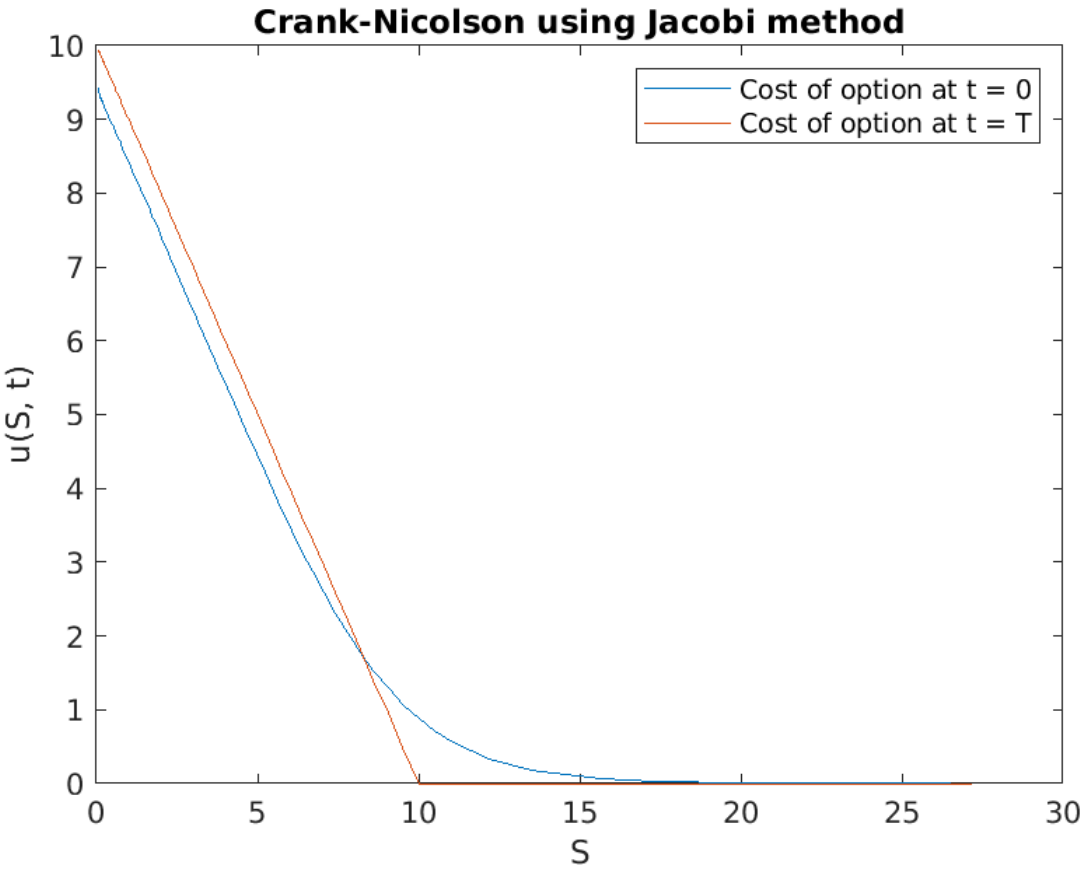
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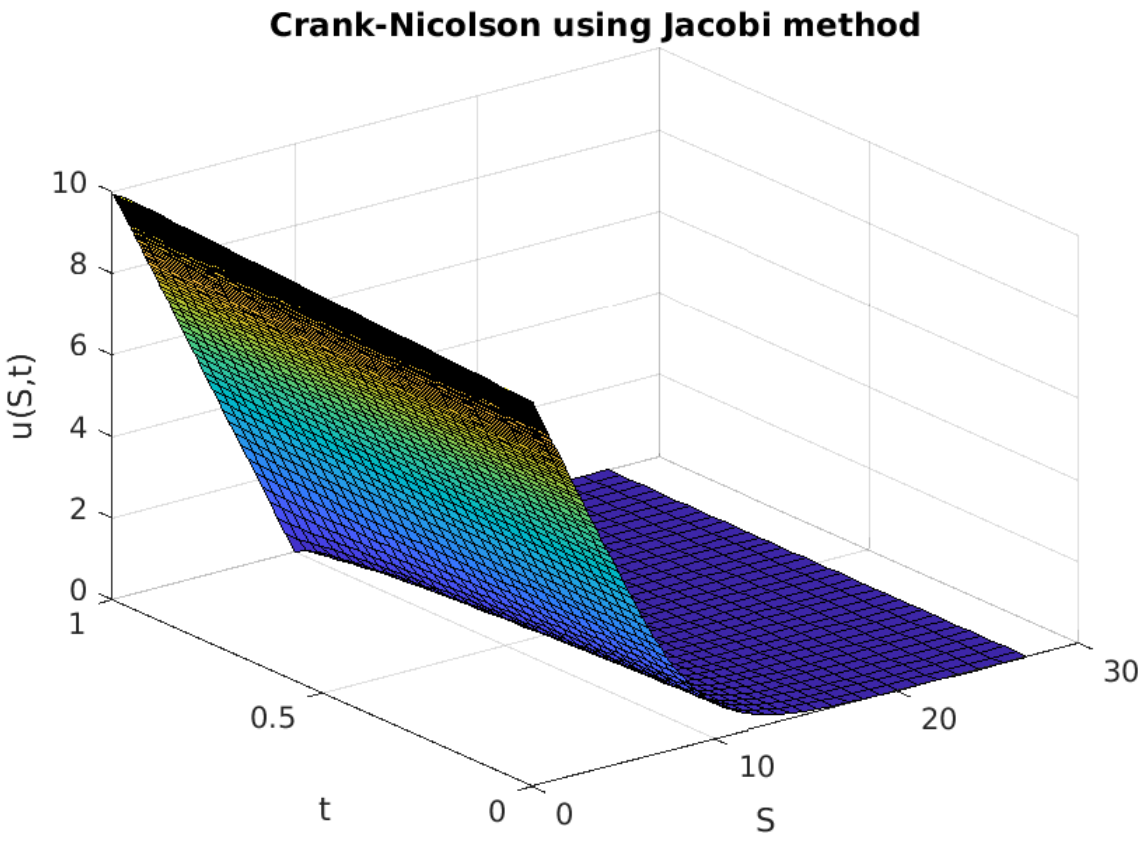
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