Удалова Е.С.

**Отчет по задаче о каверне и метод SIMPLE**

Изменение значений nu:

|  |  |
| --- | --- |
|  | N = 16  nu = 0.1  eps = 0.01  dt = 0.01  t = 0  T = 1 |
|  | N = 16  **nu = 0.01**  eps = 0.01  dt = 0.1  t = 0  T = 1 |
|  | N = 16  **nu = 0.001**  eps = 0.01  dt = 0.1  t = 0  T = 1 |
|  | N = 16  **nu = 0.00089**  eps = 0.01  dt = 0.1  t = 0  T = 1 |

Разные шаги по времени:

|  |  |
| --- | --- |
|  | N = 16  **nu = 0.00089**  eps = 0.01  dt = 0.1  t = 0  T = 1 |
|  | N = 16  **nu = 0.00089**  eps = 0.01  dt = 0.1  t = 0  T = 2 |
|  | N = 16  **nu = 0.00089**  eps = 0.01  dt = 0.1  t = 0  T = 3 |
|  | N = 16  **nu = 0.00089**  eps = 0.01  dt = 0.01  t = 0  T = 25 |

Изменение граничного условия

|  |  |
| --- | --- |
|  | Ux0 = 1  L = 1  N = 16  nu = 0.001  eps = 0.01  dt = 0.1  t = 0  T = 1 |
|  | Ux0 = 2  L = 1  N = 16  nu = 0.001  eps = 0.01  dt = 0.1  t = 0  T = 1 |

Использование релаксации:

|  |  |
| --- | --- |
|  | - |
|  | p\_new = p\_new + 0.85 \* p\_differ |
|  | p\_new = p\_new + 0.85 \* p\_differ  u\_new = a \* u\_new + (1 - a) \* u\_prev  v\_new = a \* v\_new + (1 - a) \* v\_prev |