|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Integrator | x | y | z | Vx | Vy | Vz | scalarPOS | scalarVEL |
| RKV89 | 4,8300e-06 | 1,6202e-07 | 5,0145e-07 | 3,0925e-12 | 1,9317e-12 | 1,1292e-13 | 4,8587e-06 | 3,6480e-12 |
| RKV89\_emb | 1,2433e-05 | 4,2971e-08 | 1,2909-06 | 8,1283e-12 | 5,0245e-12 | 2,5772e-13 | 1,2500e-05 | 9,5594e-12 |
| ODE113 | 1,7674e-05 | 1,7507e-05 | 1,6897e-06 | 1,1754e-11 | 7,0979e-12 | 3,3082e-12 | 2,4935e-05 | 1,4124e-11 |
| ODE45 | 2,2165e-06 | 2,2296e-06 | 3,4791e-07 | 1,4169e-12 | 8,8012e-13 | 3,9999e-13 | 3,1631e-06 | 1,7153e-12 |
| ODE87 | 1,1974e-06 | 4,6755e-08 | 1,1705e-07 | 8,2731e-13 | 4,8311e-13 | 3,3077e-14 | 1,2040e-06 | 9,5861e-13 |
|  |  |  |  |  |  |  |  |  |

Integrators are checked with full force model, i.e. Earth, Sun, Moon, planets and SRP

Worst case – ODE113

Best case – ODE87

should be rkv89 embedded