

LAMPIRAN B

KODE UDF UNTUK KONDISI BATAS SLIP

```
#include "udf.h"

DEFINE_PROFILE(shear_stressx, thread, nv)

{

    face_t f;                                /* declare "f" to be a variable of type "Face" */

    cell_t c0;                                /* declare "c0" to be a variable of type "Cell" */

    Thread *t0 = THREAD_T0(thread);          /* declare "t0" to be a variable of type "Thread" */

    float b, miu, u, w, uw, ww, uderivate, wderivate, sstressx, sstressz; /* local variables SI
units */

    begin_f_loop(f, thread)

    {

        b = 1*pow(10,-7);

        miu = 1*pow(10,-3);

        c0 = F_C0(f, thread);                 /* pointer to neighboring cell */

        uderivate= C_DUDY(c0,t0);            /* static P at cell "c0" */

        wderivate= C_DWDY(c0,t0);
```

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        uw = C_U(c0, t0);                /* get u near the wall */

ww = C_W(c0, t0);

        u = uw - b * uderivate;          /* get slip wall velocity uw */

        w = ww - b * wderivate;

        F_U(f, thread) = u;

        F_W(f, thread) = w;

        sstressx = miu * uderivate ;     /* get t */

        sstressz = miu * wderivate ;

        F_PROFILE(f, thread, nv) = sstressx ;

F_PROFILE(f, thread, nv) = sstressz ;

    }

end_f_loop(f, thread)

printf("sstressx=%g atm \n", sstressx );    /* debug statement */

printf("sstressz=%g atm \n", sstressz );    /* debug statement */

}

```