

计算Stokes drift 的名词

No	Variable	Called	IVTYPE	Type	Definition	Built in
1	Stokes drift	DRIFT	73	vector	SWAN_STOKES	2016
					SWAN_TRANSFER	2016
					BREIVIK_PHILLIPS	2017
2	Total stress	TAUTO	37	vector	SWAN_STRESS	2016
3	Dissipation stress	TAUDIS	74	vector	SWAN_STRESS	2016
4	Wind input stress	TAUWIN	75	vector	SWAN_STRESS	2016
5	Stokes transport	DTRANS	76	vector	SWAN_TRANSFER	2016
					BREIVIK_PHILLIPS	2017
6	Stokes drift profile	SHALLS	77	vector & array	SHALLOW_STK	2017
7	Stokes drift spectrum	SSPEC	78	array	SPECTRUM_STK	2017

- SWAN_STOKES: Stokes drift velocity is computed by SWAN.
- SWAN_STRESS: τ_{oc} stress is computed by SWAN.
- SWAN_TRANSPORT: Stokes drift transport is computed by SWAN.
- ROMSWN_WSTAR: τ_{air} is supplied by ROMS
- BREIVIK_PHILLIPS: Stokes profile is computed by Breivik method
- SHALLOW_STK: Stokes profile in shallow water
- SPECTRUM_STK: Stokes drift spectrum

cpp文件中，以下选项必须选一个

- SWAN_STOKES
- SWAN_TRANSPORT
- BREIVIK_PHILLIPS
- SHALLOW_STK
- SPECTRUM_STK

```
#define SWAN_STOKES      !based on the surface wave bulk parameters
```

```
#define SWAN_TRANSPORT  !based on Breivik et al., 2014 JP0
```

```
#define BREIVIK_PHILIPS !based on the Philips spectrum, see Breivik et al., 2016
```

```
#define STOKES_SPECTRUM !based on the surface wave Stokes drift spectrum
```

SWAN PRINTS STOKES PROFILE

No.	Variable	Called	IVTYPE	Type	Definition	Built in
1	Stokes drift profile	SPROF	79	array	PROFILE_STK	2017
					PROF_STOKES1	2017
					PROF_STOKES2	2017
					PROF_STOKES3	2017
					PROF_STOKES4	2017

- a. PROF_STOKES1, basic Stokes in charge.
- b. PROF_STOKES2, transport formulation in charge.
- c. PROF_STOKES3, Breivik’s method in charge.
- d. PROF_STOKES4, Stokes in shallow water in charge.

cpp文件中， 以下选项只选一个

- SWAN_STOKES
- SWAN_TRANSPORT
- BREIVIK_PHILLIPS
- SHALLOW_STK
- SPECTRUM_STK

问题

SWAN_STOKES 和 BULK_STOKES 的区别

Case - - Holland_stokes

```
#define ROMS_MODEL
#define SWAN_MODEL
#define MCT_LIB
/* Coupling parameters */
#define SWAN_STRESS
#undef BULK_STOKES
#define SPECTRUM_STK
#undef SWAN_TRANSPORT
#undef BREIVIK_PHILLIPS
```

```
#define PROFILE_STK
#define PROF_STOKES4
```