SPHFluidSettings(bpy_struct)

base class — bpy_struct

class bpy.types.**SPHFluidSettings(bpy_struct)**

Settings for particle fluids physics

buoyancy

Artificial buoyancy force in negative gravity direction based on pressure differences inside the fluid

TYPE:

float in [0, 10], default 0.0

fluid_radius

Fluid interaction radius

TYPE:

float in [0, 20], default 0.0

linear_viscosity

Linear viscosity

TYPE:

float in [0, 100], default 0.0

plasticity

How much the spring rest length can change after the elastic limit is crossed

TYPE:

float in [0, 100], default 0.0

repulsion

How strongly the fluid tries to keep from clustering (factor of stiffness)

TYPE:

float in [0, 100], default 0.0

rest_density

Fluid rest density

TYPE:

float in [0, 10000], default 0.0

rest_length

Spring rest length (factor of particle radius)

TYPE:

float in [0, 2], default 0.0

solver

The code used to calculate internal forces on particles

- DDR Double-Density – An artistic solver with strong surface tension effects (original).
- CLASSICAL Classical – A more physically-accurate solver.

TYPE:

in [‘DDR’, ‘CLASSICAL’], default ‘DDR’

enum in ['DDR', 'CLASSICAL'], default 'DDR'

spring_force

Spring force

TYPE:

float in [0, 100], default 0.0

spring_frames

Create springs for this number of frames since particles birth (0 is always)

TYPE:

int in [0, 100], default 0

stiff_viscosity

Creates viscosity for expanding fluid

TYPE:

float in [0, 100], default 0.0

stiffness

How incompressible the fluid is (speed of sound)

TYPE:

float in [0, 1000], default 0.0

use_factor_density

Density is calculated as a factor of default density (depends on particle size)

TYPE:

boolean, default False

use_factor_radius

Interaction radius is a factor of 4 * particle size

TYPE:

boolean, default False

use_factor_repulsion

Repulsion is a factor of stiffness

TYPE:

boolean, default False

use_factor_rest_length

Spring rest length is a factor of 2 * particle size

TYPE:

boolean, default False

use_factor_stiff_viscosity

Stiff viscosity is a factor of normal viscosity

TYPE:

boolean, default False

use_initial_rest_length

Use the initial length as spring rest length instead of 2 * particle size

TYPE:
boolean, default False

use_viscoelastic_springs
Use viscoelastic springs instead of Hooke's springs

TYPE:
boolean, default False

yield_ratio
How much the spring has to be stretched/compressed in order to change its rest length

TYPE:
float in [0, 1], default 0.0

classmethod bl_rna_get_subclass(id, default=None)

PARAMETERS:
id (*str*) – The RNA type identifier.

RETURNS:
The RNA type or default when not found.

RETURN TYPE:
`bpy.types.Struct` subclass

classmethod bl_rna_get_subclass_py(id, default=None)

PARAMETERS:
id (*str*) – The RNA type identifier.

RETURNS:
The class or default when not found.

RETURN TYPE:
type

Inherited Properties

- `bpy_struct.id_data`

Inherited Functions

- `bpy_struct.as_pointer`
- `bpy_struct.driver_add`
- `bpy_struct.driver_remove`
- `bpy_struct.get`
- `bpy_struct.id_properties_clear`
- `bpy_struct.id_properties_ensure`
- `bpy_struct.id_properties_ui`
- `bpy_struct.is_property_hidden`
- `bpy_struct.is_property_overridable_library`
- `bpy_struct.is_property_readonly`
- `bpy_struct.is_property_set`
- `bpy_struct.items`
- `bpy_struct.keyframe_delete`
- `bpy_struct.keyframe_insert`
- `bpy_struct.keys`
- `bpy_struct.path_from_id`
- `bpy_struct.path_resolve`
- `bpy_struct.pop`
- `bpy_struct.property_overridable_library_set`
- `bpy_struct.property_unset`
- `bpy_struct.type_recast`
- `bpy_struct.values`

References

- `ParticleSettings.fluid`