codata Documentation

Release 0.8.0rc1

M. Skocic

Jun 07, 2023

CONTENTS:

GETTING STARTED

Sources: https://github.com/MilanSkocic/codata

1.1 codata

codata provides the lastest codata constants (2018). The raw codata are taken from http://physics.nist.gov/constants.

1.1.1 How to install

A Makefile is provided which uses fpm for building the library with additional options:

- compile the source generator and generate the sources
- copy needed sources into the python wrapper folder
- build a shared library
- install the C headers
- uninstall the library and headers

On windows, msys2 needs to be installed and use the mingw64 or mingw32 terminals.

Build: the configuration file will set all the environmental variables necessary for the compilation

```
source configuration
make
```

Run tests

```
fpm test
```

Install

```
make install
```

Uninstall

```
make uninstall
```

If a shared is needed:

```
make shared
```

Then, if you need to build to Python wrapper from sources

```
cd pywrapper
python setup.py build_ext --inplace
```

1.1.2 Dependencies

```
gcc>=9
gfortran>=9
```

1.1.3 License

```
GNU General Public License v3 (GPLv3)
```

1.2 pycodata

Python module containing the codata constants.

1.2.1 How to install

```
pip install pycodata
```

1.2.2 Dependencies

```

```

1.2.3 License

```
GNU General Public License v3 (GPLv3)
```

1.3 Examples

TWO

RELEASE NOTES

2.1 Codata 0.8.0 Release Note

2.1.1 Summary

- Back to the approach with a library.

- Compatible with fpm.

- Configuration file for setting all the environmental variables.

- Global makefile for building a static library (through fpm) and a shared library.

- Automatic copy of the necessary sources for the python wrapper.

- **Python wrapper built with the static library**

    – no dependency on a shared library.

    – sources and static library embeded in the sdist of the python wrapper.

- FORD for documenting the Fortran code.

- Integration of the FORD documentation into the main documentation with sphinx.

2.1.2 Download

Codata Releases

PYPI

2.1.3 Contributors

Milan Skocic

2.1.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.7.0. . . 0.7.1

2.2 Codata 0.7.1 Release Note

2.2.1 Summary

- Minor fixes in generator code
- Add automatic copy of c sources for the python wrapper.

2.2.2 Download

Codata Releases

PYPI

2.2.3 Contributors

Milan Skocic

2.2.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.7.0...0.7.1

2.3 Codata 0.7.0 Release Note

2.3.1 Changes

- Migrate documentation from doxygen to sphinx+breathe.
- Add YEAR constant indicating the year of the codata constants.
- Refractoring

2.3.2 Download

Codata Releases

PYPI

2.3.3 Contributors

Milan Skocic

2.3.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.6.0...0.7.0

2.4 Codata 0.6.0 Release Note

2.4.1 Changes

- Created documentation.
- Fixed missing uncertainties for Cpython.

2.4.2 Download

Codata Releases

PYPI

2.4.3 Contributors

Milan Skocic

2.4.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.5.0...0.6.0

2.5 Codata 0.5.0 Release Note

2.5.1 Changes

- Changed the complete approach by not generating a library but only source files for different languages.
- Available languages: Fortran, C, python, CPython

2.5.2 Download

Codata Releases

PYPI

2.5.3 Contributors

Milan Skocic

2.5.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.4.0...0.5.0

2.6 Codata 0.4.0 Release Note

2.6.1 Changes

- Bring back pywrapper in the codata repository to sync versions.
- Improvements of the documentation.

2.6.2 Download

Codata Releases

PYPI

2.6.3 Contributors

Milan Skocic

2.6.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.3.0. . . 0.4.0

2.7 Codata 0.3.0 Release Note

2.7.1 Changes

- Only last codata constants.

2.7.2 Download

Codata Releases

PYPI

2.7.3 Contributors

Milan Skocic

2.7.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.2.1. . . 0.3.0

2.8 Codata 0.2.1 Release Note

2.8.1 Changes

- Integration of Intel Fortran compiler and MSVC in cmake scripts.
- Add specifications and instructions for compiling on Windows

2.8.2 Download

Codata Releases

PYPI

2.8.3 Contributors

Milan Skocic

2.8.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.2.0...0.2.1

2.9 Codata 0.2.0 Release Note

2.9.1 Changes

- Bug fixes for the codata 2010.
- Bug fixes in the tests linked to the codata 2010.
- Add python wrapper for the number of constants method.

2.9.2 Download

Codata Releases

PYPI

2.9.3 Contributors

Milan Skocic

2.9.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/0.1.0...0.2.0

2.10 Codata 0.1.0 Release Note

2.10.1 Changes

Implementation of:

- the parser of the codata raw data
- the generator of the Fortran modules
- the C API and C header
- the python wrapper (will be moved to its repository next release).

2.10.2 Download

Codata Releases

PYPI

2.10.3 Contributors

Milan Skocic

2.10.4 Commits

Full Changelog: https://github.com/MilanSkocic/codata/compare/....0.1.0

API

3.1 codata

3.1.1 Fortran

Fortran code API

3.1.2 C

```c
/**
* @file
* @brief Codata module - autogenerated.
*/

#if _MSC_VER & APIDLL
#define ADD_IMPORT __declspec(dllimport)
#define ADD_EXPORT __declspec(dllexport)
#else
#define ADD_IMPORT
#define ADD_EXPORT
#endif
ADD_IMPORT extern const int YEAR;

ADD_IMPORT extern const double ALPHA_PARTICLE_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ALPHA_PARTICLE_MASS;/**< kg */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_MASS;/**< kg */

ADD_IMPORT extern const double ALPHA_PARTICLE_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double ALPHA_PARTICLE_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV
↪*/
ADD_IMPORT extern const double U_ALPHA_PARTICLE_MASS_ENERGY_EQUIVALENT_IN_MEV;/**<
↪MeV */

ADD_IMPORT extern const double ALPHA_PARTICLE_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_MASS_IN_U;/**< u */

ADD_IMPORT extern const double ALPHA_PARTICLE_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_MOLAR_MASS;/**< kg mol^-1 */
```

```
ADD_IMPORT extern const double ALPHA_PARTICLE_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ALPHA_PARTICLE_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_ALPHA_PARTICLE_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double ANGSTROM_STAR;/**< m */
ADD_IMPORT extern const double U_ANGSTROM_STAR;/**< m */

ADD_IMPORT extern const double ATOMIC_MASS_CONSTANT;/**< kg */
ADD_IMPORT extern const double U_ATOMIC_MASS_CONSTANT;/**< kg */

ADD_IMPORT extern const double ATOMIC_MASS_CONSTANT_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_ATOMIC_MASS_CONSTANT_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double ATOMIC_MASS_CONSTANT_ENERGY_EQUIVALENT_IN_MEV;/**< MeV
→*/
ADD_IMPORT extern const double U_ATOMIC_MASS_CONSTANT_ENERGY_EQUIVALENT_IN_MEV;/**<
→MeV */

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_ELECTRON_VOLT_RELATIONSHIP;/**< eV
→*/

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_INVERSE_METER_RELATIONSHIP;/**< m^-1
→*/
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_INVERSE_METER_RELATIONSHIP;/**< m^-
→1 */

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP;/**< J */
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double ATOMIC_MASS_UNIT_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_ATOMIC_MASS_UNIT_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_1ST_HYPERPOLARIZABILITY;/**< C^3 m^3 J^-
→2 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_1ST_HYPERPOLARIZABILITY;/**< C^3 m^3
→J^-2 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_2ND_HYPERPOLARIZABILITY;/**< C^4 m^4 J^-
→3 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_2ND_HYPERPOLARIZABILITY;/**< C^4 m^4
→J^-3 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ACTION;/**< J s */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ACTION;/**< J s */
```

```
ADD_IMPORT extern const double ATOMIC_UNIT_OF_CHARGE;/**< C */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_CHARGE;/**< C */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_CHARGE_DENSITY;/**< C m^-3 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_CHARGE_DENSITY;/**< C m^-3 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_CURRENT;/**< A */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_CURRENT;/**< A */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ELECTRIC_DIPOLE_MOM;/**< C m */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ELECTRIC_DIPOLE_MOM;/**< C m */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ELECTRIC_FIELD;/**< V m^-1 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ELECTRIC_FIELD;/**< V m^-1 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ELECTRIC_FIELD_GRADIENT;/**< V m^-2 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ELECTRIC_FIELD_GRADIENT;/**< V m^-2 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ELECTRIC_POLARIZABILITY;/**< C^2 m^2 J^-
→1 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ELECTRIC_POLARIZABILITY;/**< C^2 m^2
→J^-1 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ELECTRIC_POTENTIAL;/**< V */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ELECTRIC_POTENTIAL;/**< V */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ELECTRIC_QUADRUPOLE_MOM;/**< C m^2 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ELECTRIC_QUADRUPOLE_MOM;/**< C m^2 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_ENERGY;/**< J */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_ENERGY;/**< J */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_FORCE;/**< N */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_FORCE;/**< N */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_LENGTH;/**< m */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_LENGTH;/**< m */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_MAG__DIPOLE_MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_MAG__DIPOLE_MOM;/**< J T^-1 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_MAG__FLUX_DENSITY;/**< T */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_MAG__FLUX_DENSITY;/**< T */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_MAGNETIZABILITY;/**< J T^-2 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_MAGNETIZABILITY;/**< J T^-2 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_MASS;/**< kg */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_MASS;/**< kg */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_MOMENTUM;/**< kg m s^-1 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_MOMENTUM;/**< kg m s^-1 */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_PERMITTIVITY;/**< F m^-1 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_PERMITTIVITY;/**< F m^-1 */
```

```
ADD_IMPORT extern const double ATOMIC_UNIT_OF_TIME;/**< s */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_TIME;/**< s */

ADD_IMPORT extern const double ATOMIC_UNIT_OF_VELOCITY;/**< m s^-1 */
ADD_IMPORT extern const double U_ATOMIC_UNIT_OF_VELOCITY;/**< m s^-1 */

ADD_IMPORT extern const double AVOGADRO_CONSTANT;/**< mol^-1 */
ADD_IMPORT extern const double U_AVOGADRO_CONSTANT;/**< mol^-1 */

ADD_IMPORT extern const double BOHR_MAGNETON;/**< J T^-1 */
ADD_IMPORT extern const double U_BOHR_MAGNETON;/**< J T^-1 */

ADD_IMPORT extern const double BOHR_MAGNETON_IN_EV_T;/**< eV T^-1 */
ADD_IMPORT extern const double U_BOHR_MAGNETON_IN_EV_T;/**< eV T^-1 */

ADD_IMPORT extern const double BOHR_MAGNETON_IN_HZ_T;/**< Hz T^-1 */
ADD_IMPORT extern const double U_BOHR_MAGNETON_IN_HZ_T;/**< Hz T^-1 */

ADD_IMPORT extern const double BOHR_MAGNETON_IN_INVERSE_METER_PER_TESLA;/**< m^-1 T^-
→1 */
ADD_IMPORT extern const double U_BOHR_MAGNETON_IN_INVERSE_METER_PER_TESLA;/**< m^-1 T^
→-1 */

ADD_IMPORT extern const double BOHR_MAGNETON_IN_K_T;/**< K T^-1 */
ADD_IMPORT extern const double U_BOHR_MAGNETON_IN_K_T;/**< K T^-1 */

ADD_IMPORT extern const double BOHR_RADIUS;/**< m */
ADD_IMPORT extern const double U_BOHR_RADIUS;/**< m */

ADD_IMPORT extern const double BOLTZMANN_CONSTANT;/**< J K^-1 */
ADD_IMPORT extern const double U_BOLTZMANN_CONSTANT;/**< J K^-1 */

ADD_IMPORT extern const double BOLTZMANN_CONSTANT_IN_EV_K;/**< eV K^-1 */
ADD_IMPORT extern const double U_BOLTZMANN_CONSTANT_IN_EV_K;/**< eV K^-1 */

ADD_IMPORT extern const double BOLTZMANN_CONSTANT_IN_HZ_K;/**< Hz K^-1 */
ADD_IMPORT extern const double U_BOLTZMANN_CONSTANT_IN_HZ_K;/**< Hz K^-1 */

ADD_IMPORT extern const double BOLTZMANN_CONSTANT_IN_INVERSE_METER_PER_KELVIN;/**< m^-
→1 K^-1 */
ADD_IMPORT extern const double U_BOLTZMANN_CONSTANT_IN_INVERSE_METER_PER_KELVIN;/**<
→m^-1 K^-1 */

ADD_IMPORT extern const double CHARACTERISTIC_IMPEDANCE_OF_VACUUM;/**< ohm */
ADD_IMPORT extern const double U_CHARACTERISTIC_IMPEDANCE_OF_VACUUM;/**< ohm */

ADD_IMPORT extern const double CLASSICAL_ELECTRON_RADIUS;/**< m */
ADD_IMPORT extern const double U_CLASSICAL_ELECTRON_RADIUS;/**< m */

ADD_IMPORT extern const double COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double CONDUCTANCE_QUANTUM;/**< S */
ADD_IMPORT extern const double U_CONDUCTANCE_QUANTUM;/**< S */
```

```
ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_AMPERE_90;/**< A */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_AMPERE_90;/**< A */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_COULOMB_90;/**< C */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_COULOMB_90;/**< C */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_FARAD_90;/**< F */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_FARAD_90;/**< F */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_HENRY_90;/**< H */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_HENRY_90;/**< H */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_JOSEPHSON_CONSTANT;/**< Hz V^-1␣
↪*/
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_JOSEPHSON_CONSTANT;/**< Hz V^-
↪1 */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_OHM_90;/**< ohm */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_OHM_90;/**< ohm */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_VOLT_90;/**< V */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_VOLT_90;/**< V */

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_VON_KLITZING_CONSTANT;/**< ohm */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_VON_KLITZING_CONSTANT;/**< ohm␣
↪*/

ADD_IMPORT extern const double CONVENTIONAL_VALUE_OF_WATT_90;/**< W */
ADD_IMPORT extern const double U_CONVENTIONAL_VALUE_OF_WATT_90;/**< W */

ADD_IMPORT extern const double COPPER_X_UNIT;/**< m */
ADD_IMPORT extern const double U_COPPER_X_UNIT;/**< m */

ADD_IMPORT extern const double DEUTERON_ELECTRON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_ELECTRON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double DEUTERON_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double DEUTERON_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_DEUTERON_G_FACTOR;/**<    */

ADD_IMPORT extern const double DEUTERON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_DEUTERON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double DEUTERON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double DEUTERON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<  ␣
↪*/

ADD_IMPORT extern const double DEUTERON_MASS;/**< kg */
ADD_IMPORT extern const double U_DEUTERON_MASS;/**< kg */

ADD_IMPORT extern const double DEUTERON_MASS_ENERGY_EQUIVALENT;/**< J */
```

```
ADD_IMPORT extern const double U_DEUTERON_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double DEUTERON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_DEUTERON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double DEUTERON_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_DEUTERON_MASS_IN_U;/**< u */

ADD_IMPORT extern const double DEUTERON_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_DEUTERON_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double DEUTERON_NEUTRON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_NEUTRON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double DEUTERON_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double DEUTERON_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_DEUTERON_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double DEUTERON_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_DEUTERON_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double DEUTERON_RMS_CHARGE_RADIUS;/**< m */
ADD_IMPORT extern const double U_DEUTERON_RMS_CHARGE_RADIUS;/**< m */

ADD_IMPORT extern const double ELECTRON_CHARGE_TO_MASS_QUOTIENT;/**< C kg^-1 */
ADD_IMPORT extern const double U_ELECTRON_CHARGE_TO_MASS_QUOTIENT;/**< C kg^-1 */

ADD_IMPORT extern const double ELECTRON_DEUTERON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_DEUTERON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_DEUTERON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_DEUTERON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_ELECTRON_G_FACTOR;/**<    */

ADD_IMPORT extern const double ELECTRON_GYROMAG__RATIO;/**< s^-1 T^-1 */
ADD_IMPORT extern const double U_ELECTRON_GYROMAG__RATIO;/**< s^-1 T^-1 */

ADD_IMPORT extern const double ELECTRON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1 */
ADD_IMPORT extern const double U_ELECTRON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1 */

ADD_IMPORT extern const double ELECTRON_HELION_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_HELION_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_ELECTRON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double ELECTRON_MAG__MOM__ANOMALY;/**<    */
ADD_IMPORT extern const double U_ELECTRON_MAG__MOM__ANOMALY;/**<    */

ADD_IMPORT extern const double ELECTRON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
```

```
ADD_IMPORT extern const double ELECTRON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<  ␣
↪*/

ADD_IMPORT extern const double ELECTRON_MASS;/**< kg */
ADD_IMPORT extern const double U_ELECTRON_MASS;/**< kg */

ADD_IMPORT extern const double ELECTRON_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_ELECTRON_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double ELECTRON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_ELECTRON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double ELECTRON_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_ELECTRON_MASS_IN_U;/**< u */

ADD_IMPORT extern const double ELECTRON_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_ELECTRON_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double ELECTRON_MUON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_MUON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_MUON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_MUON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_NEUTRON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_NEUTRON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_NEUTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_NEUTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_ELECTRON_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double ELECTRON_TAU_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_TAU_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_TO_ALPHA_PARTICLE_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_TO_ALPHA_PARTICLE_MASS_RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_TO_SHIELDED_HELION_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_TO_SHIELDED_HELION_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_TO_SHIELDED_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_TO_SHIELDED_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double ELECTRON_TRITON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_ELECTRON_TRITON_MASS_RATIO;/**<    */


ADD_IMPORT extern const double ELECTRON_VOLT;/**< J */
```

```
ADD_IMPORT extern const double U_ELECTRON_VOLT;/**< J */

ADD_IMPORT extern const double ELECTRON_VOLT_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_ELECTRON_VOLT_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */

ADD_IMPORT extern const double ELECTRON_VOLT_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_ELECTRON_VOLT_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double ELECTRON_VOLT_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_ELECTRON_VOLT_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double ELECTRON_VOLT_INVERSE_METER_RELATIONSHIP;/**< m^-1 */
ADD_IMPORT extern const double U_ELECTRON_VOLT_INVERSE_METER_RELATIONSHIP;/**< m^-1 */

ADD_IMPORT extern const double ELECTRON_VOLT_JOULE_RELATIONSHIP;/**< J */
ADD_IMPORT extern const double U_ELECTRON_VOLT_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double ELECTRON_VOLT_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_ELECTRON_VOLT_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double ELECTRON_VOLT_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_ELECTRON_VOLT_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double ELEMENTARY_CHARGE;/**< C */
ADD_IMPORT extern const double U_ELEMENTARY_CHARGE;/**< C */

ADD_IMPORT extern const double ELEMENTARY_CHARGE_OVER_H_BAR;/**< A J^-1 */
ADD_IMPORT extern const double U_ELEMENTARY_CHARGE_OVER_H_BAR;/**< A J^-1 */

ADD_IMPORT extern const double FARADAY_CONSTANT;/**< C mol^-1 */
ADD_IMPORT extern const double U_FARADAY_CONSTANT;/**< C mol^-1 */

ADD_IMPORT extern const double FERMI_COUPLING_CONSTANT;/**< GeV^-2 */
ADD_IMPORT extern const double U_FERMI_COUPLING_CONSTANT;/**< GeV^-2 */

ADD_IMPORT extern const double FINE_STRUCTURE_CONSTANT;/**<    */
ADD_IMPORT extern const double U_FINE_STRUCTURE_CONSTANT;/**<    */

ADD_IMPORT extern const double FIRST_RADIATION_CONSTANT;/**< W m^2 */
ADD_IMPORT extern const double U_FIRST_RADIATION_CONSTANT;/**< W m^2 */

ADD_IMPORT extern const double FIRST_RADIATION_CONSTANT_FOR_SPECTRAL_RADIANCE;/**< W
→m^2 sr^-1 */
ADD_IMPORT extern const double U_FIRST_RADIATION_CONSTANT_FOR_SPECTRAL_RADIANCE;/**<
→W m^2 sr^-1 */

ADD_IMPORT extern const double HARTREE_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_HARTREE_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */

ADD_IMPORT extern const double HARTREE_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_HARTREE_ELECTRON_VOLT_RELATIONSHIP;/**< eV */

ADD_IMPORT extern const double HARTREE_ENERGY;/**< J */
ADD_IMPORT extern const double U_HARTREE_ENERGY;/**< J */

ADD_IMPORT extern const double HARTREE_ENERGY_IN_EV;/**< eV */
```

```
ADD_IMPORT extern const double U_HARTREE_ENERGY_IN_EV;/**< eV */

ADD_IMPORT extern const double HARTREE_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_HARTREE_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double HARTREE_INVERSE_METER_RELATIONSHIP;/**< m^-1 */
ADD_IMPORT extern const double U_HARTREE_INVERSE_METER_RELATIONSHIP;/**< m^-1 */

ADD_IMPORT extern const double HARTREE_JOULE_RELATIONSHIP;/**< J */
ADD_IMPORT extern const double U_HARTREE_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double HARTREE_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_HARTREE_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double HARTREE_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_HARTREE_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double HELION_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_HELION_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double HELION_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_HELION_G_FACTOR;/**<    */

ADD_IMPORT extern const double HELION_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_HELION_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double HELION_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_HELION_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double HELION_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_HELION_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double HELION_MASS;/**< kg */
ADD_IMPORT extern const double U_HELION_MASS;/**< kg */

ADD_IMPORT extern const double HELION_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_HELION_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double HELION_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_HELION_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double HELION_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_HELION_MASS_IN_U;/**< u */

ADD_IMPORT extern const double HELION_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_HELION_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double HELION_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_HELION_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double HELION_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_HELION_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double HELION_SHIELDING_SHIFT;/**<    */
ADD_IMPORT extern const double U_HELION_SHIELDING_SHIFT;/**<    */
```

```
ADD_IMPORT extern const double HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_HERTZ_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */

ADD_IMPORT extern const double HERTZ_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_HERTZ_ELECTRON_VOLT_RELATIONSHIP;/**< eV */

ADD_IMPORT extern const double HERTZ_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_HERTZ_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double HERTZ_INVERSE_METER_RELATIONSHIP;/**< m^-1 */
ADD_IMPORT extern const double U_HERTZ_INVERSE_METER_RELATIONSHIP;/**< m^-1 */

ADD_IMPORT extern const double HERTZ_JOULE_RELATIONSHIP;/**< J */
ADD_IMPORT extern const double U_HERTZ_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double HERTZ_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_HERTZ_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double HERTZ_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_HERTZ_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double HYPERFINE_TRANSITION_FREQUENCY_OF_CS_133;/**< Hz */
ADD_IMPORT extern const double U_HYPERFINE_TRANSITION_FREQUENCY_OF_CS_133;/**< Hz */

ADD_IMPORT extern const double INVERSE_FINE_STRUCTURE_CONSTANT;/**<    */
ADD_IMPORT extern const double U_INVERSE_FINE_STRUCTURE_CONSTANT;/**<    */

ADD_IMPORT extern const double INVERSE_METER_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_INVERSE_METER_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */

ADD_IMPORT extern const double INVERSE_METER_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_INVERSE_METER_ELECTRON_VOLT_RELATIONSHIP;/**< eV */

ADD_IMPORT extern const double INVERSE_METER_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_INVERSE_METER_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double INVERSE_METER_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_INVERSE_METER_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double INVERSE_METER_JOULE_RELATIONSHIP;/**< J */
ADD_IMPORT extern const double U_INVERSE_METER_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double INVERSE_METER_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_INVERSE_METER_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double INVERSE_METER_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_INVERSE_METER_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double INVERSE_OF_CONDUCTANCE_QUANTUM;/**< ohm */
ADD_IMPORT extern const double U_INVERSE_OF_CONDUCTANCE_QUANTUM;/**< ohm */

ADD_IMPORT extern const double JOSEPHSON_CONSTANT;/**< Hz V^-1 */
ADD_IMPORT extern const double U_JOSEPHSON_CONSTANT;/**< Hz V^-1 */

ADD_IMPORT extern const double JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_JOULE_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
```

```
ADD_IMPORT extern const double JOULE_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_JOULE_ELECTRON_VOLT_RELATIONSHIP;/**< eV */

ADD_IMPORT extern const double JOULE_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_JOULE_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double JOULE_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_JOULE_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double JOULE_INVERSE_METER_RELATIONSHIP;/**< m^-1 */
ADD_IMPORT extern const double U_JOULE_INVERSE_METER_RELATIONSHIP;/**< m^-1 */

ADD_IMPORT extern const double JOULE_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_JOULE_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double JOULE_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_JOULE_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_KELVIN_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */

ADD_IMPORT extern const double KELVIN_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_KELVIN_ELECTRON_VOLT_RELATIONSHIP;/**< eV */

ADD_IMPORT extern const double KELVIN_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_KELVIN_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double KELVIN_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_KELVIN_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double KELVIN_INVERSE_METER_RELATIONSHIP;/**< m^-1 */
ADD_IMPORT extern const double U_KELVIN_INVERSE_METER_RELATIONSHIP;/**< m^-1 */

ADD_IMPORT extern const double KELVIN_JOULE_RELATIONSHIP;/**< J */
ADD_IMPORT extern const double U_KELVIN_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double KELVIN_KILOGRAM_RELATIONSHIP;/**< kg */
ADD_IMPORT extern const double U_KELVIN_KILOGRAM_RELATIONSHIP;/**< kg */

ADD_IMPORT extern const double KILOGRAM_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */
ADD_IMPORT extern const double U_KILOGRAM_ATOMIC_MASS_UNIT_RELATIONSHIP;/**< u */

ADD_IMPORT extern const double KILOGRAM_ELECTRON_VOLT_RELATIONSHIP;/**< eV */
ADD_IMPORT extern const double U_KILOGRAM_ELECTRON_VOLT_RELATIONSHIP;/**< eV */

ADD_IMPORT extern const double KILOGRAM_HARTREE_RELATIONSHIP;/**< E_h */
ADD_IMPORT extern const double U_KILOGRAM_HARTREE_RELATIONSHIP;/**< E_h */

ADD_IMPORT extern const double KILOGRAM_HERTZ_RELATIONSHIP;/**< Hz */
ADD_IMPORT extern const double U_KILOGRAM_HERTZ_RELATIONSHIP;/**< Hz */

ADD_IMPORT extern const double KILOGRAM_INVERSE_METER_RELATIONSHIP;/**< m^-1 */
ADD_IMPORT extern const double U_KILOGRAM_INVERSE_METER_RELATIONSHIP;/**< m^-1 */

ADD_IMPORT extern const double KILOGRAM_JOULE_RELATIONSHIP;/**< J */
```

```
ADD_IMPORT extern const double U_KILOGRAM_JOULE_RELATIONSHIP;/**< J */

ADD_IMPORT extern const double KILOGRAM_KELVIN_RELATIONSHIP;/**< K */
ADD_IMPORT extern const double U_KILOGRAM_KELVIN_RELATIONSHIP;/**< K */

ADD_IMPORT extern const double LATTICE_PARAMETER_OF_SILICON;/**< m */
ADD_IMPORT extern const double U_LATTICE_PARAMETER_OF_SILICON;/**< m */

ADD_IMPORT extern const double LATTICE_SPACING_OF_IDEAL_SI__220;/**< m */
ADD_IMPORT extern const double U_LATTICE_SPACING_OF_IDEAL_SI__220;/**< m */

ADD_IMPORT extern const double LOSCHMIDT_CONSTANT__273_15_K__100_KPA;/**< m^-3 */
ADD_IMPORT extern const double U_LOSCHMIDT_CONSTANT__273_15_K__100_KPA;/**< m^-3 */

ADD_IMPORT extern const double LOSCHMIDT_CONSTANT__273_15_K__101_325_KPA;/**< m^-3 */
ADD_IMPORT extern const double U_LOSCHMIDT_CONSTANT__273_15_K__101_325_KPA;/**< m^-3
→*/

ADD_IMPORT extern const double LUMINOUS_EFFICACY;/**< lm W^-1 */
ADD_IMPORT extern const double U_LUMINOUS_EFFICACY;/**< lm W^-1 */

ADD_IMPORT extern const double MAG__FLUX_QUANTUM;/**< Wb */
ADD_IMPORT extern const double U_MAG__FLUX_QUANTUM;/**< Wb */

ADD_IMPORT extern const double MOLAR_GAS_CONSTANT;/**< J mol^-1 K^-1 */
ADD_IMPORT extern const double U_MOLAR_GAS_CONSTANT;/**< J mol^-1 K^-1 */

ADD_IMPORT extern const double MOLAR_MASS_CONSTANT;/**< kg mol^-1 */
ADD_IMPORT extern const double U_MOLAR_MASS_CONSTANT;/**< kg mol^-1 */

ADD_IMPORT extern const double MOLAR_MASS_OF_CARBON_12;/**< kg mol^-1 */
ADD_IMPORT extern const double U_MOLAR_MASS_OF_CARBON_12;/**< kg mol^-1 */

ADD_IMPORT extern const double MOLAR_PLANCK_CONSTANT;/**< J Hz^-1 mol^-1 */
ADD_IMPORT extern const double U_MOLAR_PLANCK_CONSTANT;/**< J Hz^-1 mol^-1 */

ADD_IMPORT extern const double MOLAR_VOLUME_OF_IDEAL_GAS__273_15_K__100_KPA;/**< m^3
→mol^-1 */
ADD_IMPORT extern const double U_MOLAR_VOLUME_OF_IDEAL_GAS__273_15_K__100_KPA;/**< m^
→3 mol^-1 */

ADD_IMPORT extern const double MOLAR_VOLUME_OF_IDEAL_GAS__273_15_K__101_325_KPA;/**<
→m^3 mol^-1 */
ADD_IMPORT extern const double U_MOLAR_VOLUME_OF_IDEAL_GAS__273_15_K__101_325_KPA;/**
→< m^3 mol^-1 */

ADD_IMPORT extern const double MOLAR_VOLUME_OF_SILICON;/**< m^3 mol^-1 */
ADD_IMPORT extern const double U_MOLAR_VOLUME_OF_SILICON;/**< m^3 mol^-1 */

ADD_IMPORT extern const double MOLYBDENUM_X_UNIT;/**< m */
ADD_IMPORT extern const double U_MOLYBDENUM_X_UNIT;/**< m */

ADD_IMPORT extern const double MUON_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_MUON_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double MUON_ELECTRON_MASS_RATIO;/**<  */
```

Chapter 3. API

```
ADD_IMPORT extern const double U_MUON_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double MUON_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_MUON_G_FACTOR;/**<    */

ADD_IMPORT extern const double MUON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_MUON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double MUON_MAG__MOM__ANOMALY;/**<    */
ADD_IMPORT extern const double U_MUON_MAG__MOM__ANOMALY;/**<    */

ADD_IMPORT extern const double MUON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_MUON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double MUON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_MUON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double MUON_MASS;/**< kg */
ADD_IMPORT extern const double U_MUON_MASS;/**< kg */

ADD_IMPORT extern const double MUON_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_MUON_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double MUON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_MUON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double MUON_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_MUON_MASS_IN_U;/**< u */

ADD_IMPORT extern const double MUON_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_MUON_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double MUON_NEUTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_MUON_NEUTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double MUON_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_MUON_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double MUON_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_MUON_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double MUON_TAU_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_MUON_TAU_MASS_RATIO;/**<    */

ADD_IMPORT extern const double NATURAL_UNIT_OF_ACTION;/**< J s */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_ACTION;/**< J s */

ADD_IMPORT extern const double NATURAL_UNIT_OF_ACTION_IN_EV_S;/**< eV s */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_ACTION_IN_EV_S;/**< eV s */

ADD_IMPORT extern const double NATURAL_UNIT_OF_ENERGY;/**< J */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_ENERGY;/**< J */

ADD_IMPORT extern const double NATURAL_UNIT_OF_ENERGY_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_ENERGY_IN_MEV;/**< MeV */
```

```
ADD_IMPORT extern const double NATURAL_UNIT_OF_LENGTH;/**< m */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_LENGTH;/**< m */

ADD_IMPORT extern const double NATURAL_UNIT_OF_MASS;/**< kg */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_MASS;/**< kg */

ADD_IMPORT extern const double NATURAL_UNIT_OF_MOMENTUM;/**< kg m s^-1 */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_MOMENTUM;/**< kg m s^-1 */

ADD_IMPORT extern const double NATURAL_UNIT_OF_MOMENTUM_IN_MEV_C;/**< MeV/c */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_MOMENTUM_IN_MEV_C;/**< MeV/c */

ADD_IMPORT extern const double NATURAL_UNIT_OF_TIME;/**< s */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_TIME;/**< s */

ADD_IMPORT extern const double NATURAL_UNIT_OF_VELOCITY;/**< m s^-1 */
ADD_IMPORT extern const double U_NATURAL_UNIT_OF_VELOCITY;/**< m s^-1 */

ADD_IMPORT extern const double NEUTRON_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_NEUTRON_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double NEUTRON_ELECTRON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_ELECTRON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_NEUTRON_G_FACTOR;/**<    */

ADD_IMPORT extern const double NEUTRON_GYROMAG__RATIO;/**< s^-1 T^-1 */
ADD_IMPORT extern const double U_NEUTRON_GYROMAG__RATIO;/**< s^-1 T^-1 */

ADD_IMPORT extern const double NEUTRON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1 */
ADD_IMPORT extern const double U_NEUTRON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1 */

ADD_IMPORT extern const double NEUTRON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_NEUTRON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double NEUTRON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_MASS;/**< kg */
ADD_IMPORT extern const double U_NEUTRON_MASS;/**< kg */

ADD_IMPORT extern const double NEUTRON_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_NEUTRON_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double NEUTRON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_NEUTRON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double NEUTRON_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_NEUTRON_MASS_IN_U;/**< u */
```

```
ADD_IMPORT extern const double NEUTRON_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_NEUTRON_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double NEUTRON_MUON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_MUON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_PROTON_MASS_DIFFERENCE;/**< kg */
ADD_IMPORT extern const double U_NEUTRON_PROTON_MASS_DIFFERENCE;/**< kg */

ADD_IMPORT extern const double NEUTRON_PROTON_MASS_DIFFERENCE_ENERGY_EQUIVALENT;/**<
↪J */
ADD_IMPORT extern const double U_NEUTRON_PROTON_MASS_DIFFERENCE_ENERGY_EQUIVALENT;/**
↪< J */

ADD_IMPORT extern const double NEUTRON_PROTON_MASS_DIFFERENCE_ENERGY_EQUIVALENT_IN_
↪MEV;/**< MeV */
ADD_IMPORT extern const double U_NEUTRON_PROTON_MASS_DIFFERENCE_ENERGY_EQUIVALENT_IN_
↪MEV;/**< MeV */

ADD_IMPORT extern const double NEUTRON_PROTON_MASS_DIFFERENCE_IN_U;/**< u */
ADD_IMPORT extern const double U_NEUTRON_PROTON_MASS_DIFFERENCE_IN_U;/**< u */

ADD_IMPORT extern const double NEUTRON_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_NEUTRON_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double NEUTRON_TAU_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_TAU_MASS_RATIO;/**<    */

ADD_IMPORT extern const double NEUTRON_TO_SHIELDED_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_NEUTRON_TO_SHIELDED_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double NEWTONIAN_CONSTANT_OF_GRAVITATION;/**< m^3 kg^-1 s^-2
↪*/
ADD_IMPORT extern const double U_NEWTONIAN_CONSTANT_OF_GRAVITATION;/**< m^3 kg^-1 s^-
↪2 */

ADD_IMPORT extern const double NEWTONIAN_CONSTANT_OF_GRAVITATION_OVER_H_BAR_C;/**<
↪(GeV/c^2)^-2 */
ADD_IMPORT extern const double U_NEWTONIAN_CONSTANT_OF_GRAVITATION_OVER_H_BAR_C;/**<
↪(GeV/c^2)^-2 */

ADD_IMPORT extern const double NUCLEAR_MAGNETON;/**< J T^-1 */
ADD_IMPORT extern const double U_NUCLEAR_MAGNETON;/**< J T^-1 */

ADD_IMPORT extern const double NUCLEAR_MAGNETON_IN_EV_T;/**< eV T^-1 */
ADD_IMPORT extern const double U_NUCLEAR_MAGNETON_IN_EV_T;/**< eV T^-1 */

ADD_IMPORT extern const double NUCLEAR_MAGNETON_IN_INVERSE_METER_PER_TESLA;/**< m^-1
↪T^-1 */
```

```
ADD_IMPORT extern const double U_NUCLEAR_MAGNETON_IN_INVERSE_METER_PER_TESLA;/**< m^-
↪1 T^-1 */

ADD_IMPORT extern const double NUCLEAR_MAGNETON_IN_K_T;/**< K T^-1 */
ADD_IMPORT extern const double U_NUCLEAR_MAGNETON_IN_K_T;/**< K T^-1 */

ADD_IMPORT extern const double NUCLEAR_MAGNETON_IN_MHZ_T;/**< MHz T^-1 */
ADD_IMPORT extern const double U_NUCLEAR_MAGNETON_IN_MHZ_T;/**< MHz T^-1 */

ADD_IMPORT extern const double PLANCK_CONSTANT;/**< J Hz^-1 */
ADD_IMPORT extern const double U_PLANCK_CONSTANT;/**< J Hz^-1 */

ADD_IMPORT extern const double PLANCK_CONSTANT_IN_EV_HZ;/**< eV Hz^-1 */
ADD_IMPORT extern const double U_PLANCK_CONSTANT_IN_EV_HZ;/**< eV Hz^-1 */

ADD_IMPORT extern const double PLANCK_LENGTH;/**< m */
ADD_IMPORT extern const double U_PLANCK_LENGTH;/**< m */

ADD_IMPORT extern const double PLANCK_MASS;/**< kg */
ADD_IMPORT extern const double U_PLANCK_MASS;/**< kg */

ADD_IMPORT extern const double PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV;/**< GeV */
ADD_IMPORT extern const double U_PLANCK_MASS_ENERGY_EQUIVALENT_IN_GEV;/**< GeV */

ADD_IMPORT extern const double PLANCK_TEMPERATURE;/**< K */
ADD_IMPORT extern const double U_PLANCK_TEMPERATURE;/**< K */

ADD_IMPORT extern const double PLANCK_TIME;/**< s */
ADD_IMPORT extern const double U_PLANCK_TIME;/**< s */

ADD_IMPORT extern const double PROTON_CHARGE_TO_MASS_QUOTIENT;/**< C kg^-1 */
ADD_IMPORT extern const double U_PROTON_CHARGE_TO_MASS_QUOTIENT;/**< C kg^-1 */

ADD_IMPORT extern const double PROTON_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_PROTON_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double PROTON_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double PROTON_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_PROTON_G_FACTOR;/**<    */

ADD_IMPORT extern const double PROTON_GYROMAG__RATIO;/**< s^-1 T^-1 */
ADD_IMPORT extern const double U_PROTON_GYROMAG__RATIO;/**< s^-1 T^-1 */

ADD_IMPORT extern const double PROTON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1 */
ADD_IMPORT extern const double U_PROTON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1 */

ADD_IMPORT extern const double PROTON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_PROTON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double PROTON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double PROTON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
```

```
ADD_IMPORT extern const double PROTON_MAG__SHIELDING_CORRECTION;/**<    */
ADD_IMPORT extern const double U_PROTON_MAG__SHIELDING_CORRECTION;/**<    */

ADD_IMPORT extern const double PROTON_MASS;/**< kg */
ADD_IMPORT extern const double U_PROTON_MASS;/**< kg */

ADD_IMPORT extern const double PROTON_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_PROTON_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_PROTON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double PROTON_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_PROTON_MASS_IN_U;/**< u */

ADD_IMPORT extern const double PROTON_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_PROTON_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double PROTON_MUON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_MUON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double PROTON_NEUTRON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_NEUTRON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double PROTON_NEUTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_NEUTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double PROTON_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_PROTON_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double PROTON_RMS_CHARGE_RADIUS;/**< m */
ADD_IMPORT extern const double U_PROTON_RMS_CHARGE_RADIUS;/**< m */

ADD_IMPORT extern const double PROTON_TAU_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_PROTON_TAU_MASS_RATIO;/**<    */

ADD_IMPORT extern const double QUANTUM_OF_CIRCULATION;/**< m^2 s^-1 */
ADD_IMPORT extern const double U_QUANTUM_OF_CIRCULATION;/**< m^2 s^-1 */

ADD_IMPORT extern const double QUANTUM_OF_CIRCULATION_TIMES_2;/**< m^2 s^-1 */
ADD_IMPORT extern const double U_QUANTUM_OF_CIRCULATION_TIMES_2;/**< m^2 s^-1 */

ADD_IMPORT extern const double REDUCED_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_REDUCED_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double REDUCED_MUON_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_REDUCED_MUON_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double REDUCED_NEUTRON_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_REDUCED_NEUTRON_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double REDUCED_PLANCK_CONSTANT;/**< J s */
ADD_IMPORT extern const double U_REDUCED_PLANCK_CONSTANT;/**< J s */


ADD_IMPORT extern const double REDUCED_PLANCK_CONSTANT_IN_EV_S;/**< eV s */
```

```
ADD_IMPORT extern const double U_REDUCED_PLANCK_CONSTANT_IN_EV_S;/**< eV s */

ADD_IMPORT extern const double REDUCED_PLANCK_CONSTANT_TIMES_C_IN_MEV_FM;/**< MeV fm
↪*/
ADD_IMPORT extern const double U_REDUCED_PLANCK_CONSTANT_TIMES_C_IN_MEV_FM;/**< MeV
↪fm */

ADD_IMPORT extern const double REDUCED_PROTON_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_REDUCED_PROTON_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double REDUCED_TAU_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_REDUCED_TAU_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double RYDBERG_CONSTANT;/**< m^-1 */
ADD_IMPORT extern const double U_RYDBERG_CONSTANT;/**< m^-1 */

ADD_IMPORT extern const double RYDBERG_CONSTANT_TIMES_C_IN_HZ;/**< Hz */
ADD_IMPORT extern const double U_RYDBERG_CONSTANT_TIMES_C_IN_HZ;/**< Hz */

ADD_IMPORT extern const double RYDBERG_CONSTANT_TIMES_HC_IN_EV;/**< eV */
ADD_IMPORT extern const double U_RYDBERG_CONSTANT_TIMES_HC_IN_EV;/**< eV */

ADD_IMPORT extern const double RYDBERG_CONSTANT_TIMES_HC_IN_J;/**< J */
ADD_IMPORT extern const double U_RYDBERG_CONSTANT_TIMES_HC_IN_J;/**< J */

ADD_IMPORT extern const double SACKUR_TETRODE_CONSTANT__1_K__100_KPA;/**<   */
ADD_IMPORT extern const double U_SACKUR_TETRODE_CONSTANT__1_K__100_KPA;/**<   */

ADD_IMPORT extern const double SACKUR_TETRODE_CONSTANT__1_K__101_325_KPA;/**<   */
ADD_IMPORT extern const double U_SACKUR_TETRODE_CONSTANT__1_K__101_325_KPA;/**<   */

ADD_IMPORT extern const double SECOND_RADIATION_CONSTANT;/**< m K */
ADD_IMPORT extern const double U_SECOND_RADIATION_CONSTANT;/**< m K */

ADD_IMPORT extern const double SHIELDED_HELION_GYROMAG__RATIO;/**< s^-1 T^-1 */
ADD_IMPORT extern const double U_SHIELDED_HELION_GYROMAG__RATIO;/**< s^-1 T^-1 */

ADD_IMPORT extern const double SHIELDED_HELION_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1
↪*/
ADD_IMPORT extern const double U_SHIELDED_HELION_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-
↪1 */

ADD_IMPORT extern const double SHIELDED_HELION_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_SHIELDED_HELION_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double SHIELDED_HELION_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**< 
↪ */
ADD_IMPORT extern const double U_SHIELDED_HELION_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**
↪<   */

ADD_IMPORT extern const double SHIELDED_HELION_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**
↪<   */
ADD_IMPORT extern const double U_SHIELDED_HELION_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/
↪**<   */

ADD_IMPORT extern const double SHIELDED_HELION_TO_PROTON_MAG__MOM__RATIO;/**<   */
```

```
ADD_IMPORT extern const double U_SHIELDED_HELION_TO_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double SHIELDED_HELION_TO_SHIELDED_PROTON_MAG__MOM__RATIO;/**
↪<    */
ADD_IMPORT extern const double U_SHIELDED_HELION_TO_SHIELDED_PROTON_MAG__MOM__RATIO;/
↪**<    */

ADD_IMPORT extern const double SHIELDED_PROTON_GYROMAG__RATIO;/**< s^-1 T^-1 */
ADD_IMPORT extern const double U_SHIELDED_PROTON_GYROMAG__RATIO;/**< s^-1 T^-1 */

ADD_IMPORT extern const double SHIELDED_PROTON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-1
↪*/
ADD_IMPORT extern const double U_SHIELDED_PROTON_GYROMAG__RATIO_IN_MHZ_T;/**< MHz T^-
↪1 */

ADD_IMPORT extern const double SHIELDED_PROTON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_SHIELDED_PROTON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double SHIELDED_PROTON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<
↪ */
ADD_IMPORT extern const double U_SHIELDED_PROTON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**
↪<    */

ADD_IMPORT extern const double SHIELDED_PROTON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**
↪<    */
ADD_IMPORT extern const double U_SHIELDED_PROTON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/
↪**<    */

ADD_IMPORT extern const double SHIELDING_DIFFERENCE_OF_D_AND_P_IN_HD;/**<    */
ADD_IMPORT extern const double U_SHIELDING_DIFFERENCE_OF_D_AND_P_IN_HD;/**<    */

ADD_IMPORT extern const double SHIELDING_DIFFERENCE_OF_T_AND_P_IN_HT;/**<    */
ADD_IMPORT extern const double U_SHIELDING_DIFFERENCE_OF_T_AND_P_IN_HT;/**<    */

ADD_IMPORT extern const double SPEED_OF_LIGHT_IN_VACUUM;/**< m s^-1 */
ADD_IMPORT extern const double U_SPEED_OF_LIGHT_IN_VACUUM;/**< m s^-1 */

ADD_IMPORT extern const double STANDARD_ACCELERATION_OF_GRAVITY;/**< m s^-2 */
ADD_IMPORT extern const double U_STANDARD_ACCELERATION_OF_GRAVITY;/**< m s^-2 */

ADD_IMPORT extern const double STANDARD_ATMOSPHERE;/**< Pa */
ADD_IMPORT extern const double U_STANDARD_ATMOSPHERE;/**< Pa */

ADD_IMPORT extern const double STANDARD_STATE_PRESSURE;/**< Pa */
ADD_IMPORT extern const double U_STANDARD_STATE_PRESSURE;/**< Pa */

ADD_IMPORT extern const double STEFAN_BOLTZMANN_CONSTANT;/**< W m^-2 K^-4 */
ADD_IMPORT extern const double U_STEFAN_BOLTZMANN_CONSTANT;/**< W m^-2 K^-4 */

ADD_IMPORT extern const double TAU_COMPTON_WAVELENGTH;/**< m */
ADD_IMPORT extern const double U_TAU_COMPTON_WAVELENGTH;/**< m */

ADD_IMPORT extern const double TAU_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_TAU_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double TAU_ENERGY_EQUIVALENT;/**< MeV */
```

```
ADD_IMPORT extern const double U_TAU_ENERGY_EQUIVALENT;/**< MeV */

ADD_IMPORT extern const double TAU_MASS;/**< kg */
ADD_IMPORT extern const double U_TAU_MASS;/**< kg */

ADD_IMPORT extern const double TAU_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_TAU_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double TAU_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_TAU_MASS_IN_U;/**< u */

ADD_IMPORT extern const double TAU_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_TAU_MOLAR_MASS;/**< kg mol^-1 */

ADD_IMPORT extern const double TAU_MUON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_TAU_MUON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double TAU_NEUTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_TAU_NEUTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double TAU_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_TAU_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double THOMSON_CROSS_SECTION;/**< m^2 */
ADD_IMPORT extern const double U_THOMSON_CROSS_SECTION;/**< m^2 */

ADD_IMPORT extern const double TRITON_ELECTRON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_TRITON_ELECTRON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double TRITON_G_FACTOR;/**<    */
ADD_IMPORT extern const double U_TRITON_G_FACTOR;/**<    */

ADD_IMPORT extern const double TRITON_MAG__MOM;/**< J T^-1 */
ADD_IMPORT extern const double U_TRITON_MAG__MOM;/**< J T^-1 */

ADD_IMPORT extern const double TRITON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_TRITON_MAG__MOM__TO_BOHR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double TRITON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */
ADD_IMPORT extern const double U_TRITON_MAG__MOM__TO_NUCLEAR_MAGNETON_RATIO;/**<    */

ADD_IMPORT extern const double TRITON_MASS;/**< kg */
ADD_IMPORT extern const double U_TRITON_MASS;/**< kg */

ADD_IMPORT extern const double TRITON_MASS_ENERGY_EQUIVALENT;/**< J */
ADD_IMPORT extern const double U_TRITON_MASS_ENERGY_EQUIVALENT;/**< J */

ADD_IMPORT extern const double TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */
ADD_IMPORT extern const double U_TRITON_MASS_ENERGY_EQUIVALENT_IN_MEV;/**< MeV */

ADD_IMPORT extern const double TRITON_MASS_IN_U;/**< u */
ADD_IMPORT extern const double U_TRITON_MASS_IN_U;/**< u */

ADD_IMPORT extern const double TRITON_MOLAR_MASS;/**< kg mol^-1 */
ADD_IMPORT extern const double U_TRITON_MOLAR_MASS;/**< kg mol^-1 */
```

```
ADD_IMPORT extern const double TRITON_PROTON_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_TRITON_PROTON_MASS_RATIO;/**<    */

ADD_IMPORT extern const double TRITON_RELATIVE_ATOMIC_MASS;/**<    */
ADD_IMPORT extern const double U_TRITON_RELATIVE_ATOMIC_MASS;/**<    */

ADD_IMPORT extern const double TRITON_TO_PROTON_MAG__MOM__RATIO;/**<    */
ADD_IMPORT extern const double U_TRITON_TO_PROTON_MAG__MOM__RATIO;/**<    */

ADD_IMPORT extern const double UNIFIED_ATOMIC_MASS_UNIT;/**< kg */
ADD_IMPORT extern const double U_UNIFIED_ATOMIC_MASS_UNIT;/**< kg */

ADD_IMPORT extern const double VACUUM_ELECTRIC_PERMITTIVITY;/**< F m^-1 */
ADD_IMPORT extern const double U_VACUUM_ELECTRIC_PERMITTIVITY;/**< F m^-1 */

ADD_IMPORT extern const double VACUUM_MAG__PERMEABILITY;/**< N A^-2 */
ADD_IMPORT extern const double U_VACUUM_MAG__PERMEABILITY;/**< N A^-2 */

ADD_IMPORT extern const double VON_KLITZING_CONSTANT;/**< ohm */
ADD_IMPORT extern const double U_VON_KLITZING_CONSTANT;/**< ohm */

ADD_IMPORT extern const double WEAK_MIXING_ANGLE;/**<    */
ADD_IMPORT extern const double U_WEAK_MIXING_ANGLE;/**<    */

ADD_IMPORT extern const double WIEN_FREQUENCY_DISPLACEMENT_LAW_CONSTANT;/**< Hz K^-1
→*/
ADD_IMPORT extern const double U_WIEN_FREQUENCY_DISPLACEMENT_LAW_CONSTANT;/**< Hz K^-
→1 */

ADD_IMPORT extern const double WIEN_WAVELENGTH_DISPLACEMENT_LAW_CONSTANT;/**< m K */
ADD_IMPORT extern const double U_WIEN_WAVELENGTH_DISPLACEMENT_LAW_CONSTANT;/**< m K */

ADD_IMPORT extern const double W_TO_Z_MASS_RATIO;/**<    */
ADD_IMPORT extern const double U_W_TO_Z_MASS_RATIO;/**<    */
```

3.2 pycodata

All constant as declared in the *codata* are inserted at the top level of the module.

Python module containing the codata constants.

INDICES AND TABLES

- genindex
- modindex
- search

PYTHON MODULE INDEX

p

INDEX

M
module
    pycodata, 29

P
pycodata
    module, 29