

My Project

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Chapter 1

Namespace Index

1.1 Namespace List

Here is a list of all documented namespaces with brief descriptions:

[atom_2e](#)

This program calculates bound (b), single-ionization (si) and double-ionization (di) probabilities based on the tdse.nc output of the tdse calculation of a 2e-system

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Chapter 2

Class Index

2.1 Class List

Here are the classes, structs, unions and interfaces with brief descriptions:

atom_2e::symmetry_ls2e	7
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Chapter 3

Namespace Documentation

3.1 atom_2e Module Reference

This program calculates bound (b), single-ionization (si) and double-ionization (di) probabilities based on the tdse.nc output of the tdse calculation of a 2e-system.

Data Types

- type [symmetry_ls2e](#)

Functions/Subroutines

- subroutine **init_symmetry_ls2e** (this, l_2e, s_2e, n_e2e, n_c2e)
- subroutine **init_w2e_configurations** (this, li)

3.1.1 Detailed Description

This program calculates bound (b), single-ionization (si) and double-ionization (di) probabilities based on the tdse.nc output of the tdse calculation of a 2e-system.

$$P_{di} = \sum_{E>0, nl>0} |\langle \phi_0 | \psi(t) \rangle|^2$$

Chapter 4

Class Documentation

4.1 atom_2e::symmetry_ls2e Type Reference

Public Attributes

- integer **l**
- integer **s**
- integer **net**
- real(dpk), dimension(:), allocatable **ent**
- complex(dpk), dimension(:), allocatable **ct**
- real(dpk), dimension(:), allocatable **pt**
- integer **nev**
- integer **ncf**
- integer **nch**
- integer, dimension(:), allocatable **n1**
- integer, dimension(:), allocatable **l1**
- integer, dimension(:), allocatable **n2**
- integer, dimension(:), allocatable **l2**
- real(dpk), dimension(:), allocatable **ev**
- real(dpk), dimension(:,:), allocatable **cv**
- real(dpk), dimension(:), allocatable **pvt**
- real(dpk), dimension(:), allocatable **var**
- real(dpk), dimension(:), allocatable **f**
- real(dpk), dimension(ic), allocatable **p** = $\sum_{ie} |cv(ie, ic) * ct(ie)|^2$
- real(dpk), dimension(:), allocatable **pvt_b**
- real(dpk), dimension(:), allocatable **pvt_s**
- real(dpk), dimension(:), allocatable **pvt_d**
- real(dpk), dimension(:), allocatable **pop_c2e**

The documentation for this type was generated from the following file:

- tdse_pop_sdi.f90

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