Osteotomy_web

Osteotomy_calc is a veterinary surgeon OP planning tool, written in Python by Uwe Schweinsberg.
The web-version of Osteotomy_web is embedded in the Flask web framework and forked from microblog.
A detailed documentations explains OP-Planning with Blender. Planning templates of examples are provided for download. A forum can be used for exchange of ideas and suggestions.

License

Deployment

The source code is already accessible via a github repository.

After release of the Pumuckel case report , by Lorenz Schweinsberg, the site shall be deployed on a debian server.

NGINX is used as HTTP server, reverse proxy and IMAP/POP3 proxy server.

The application is deployed with Gunicorn, a Python WSGI HTTP Server for UNIX.

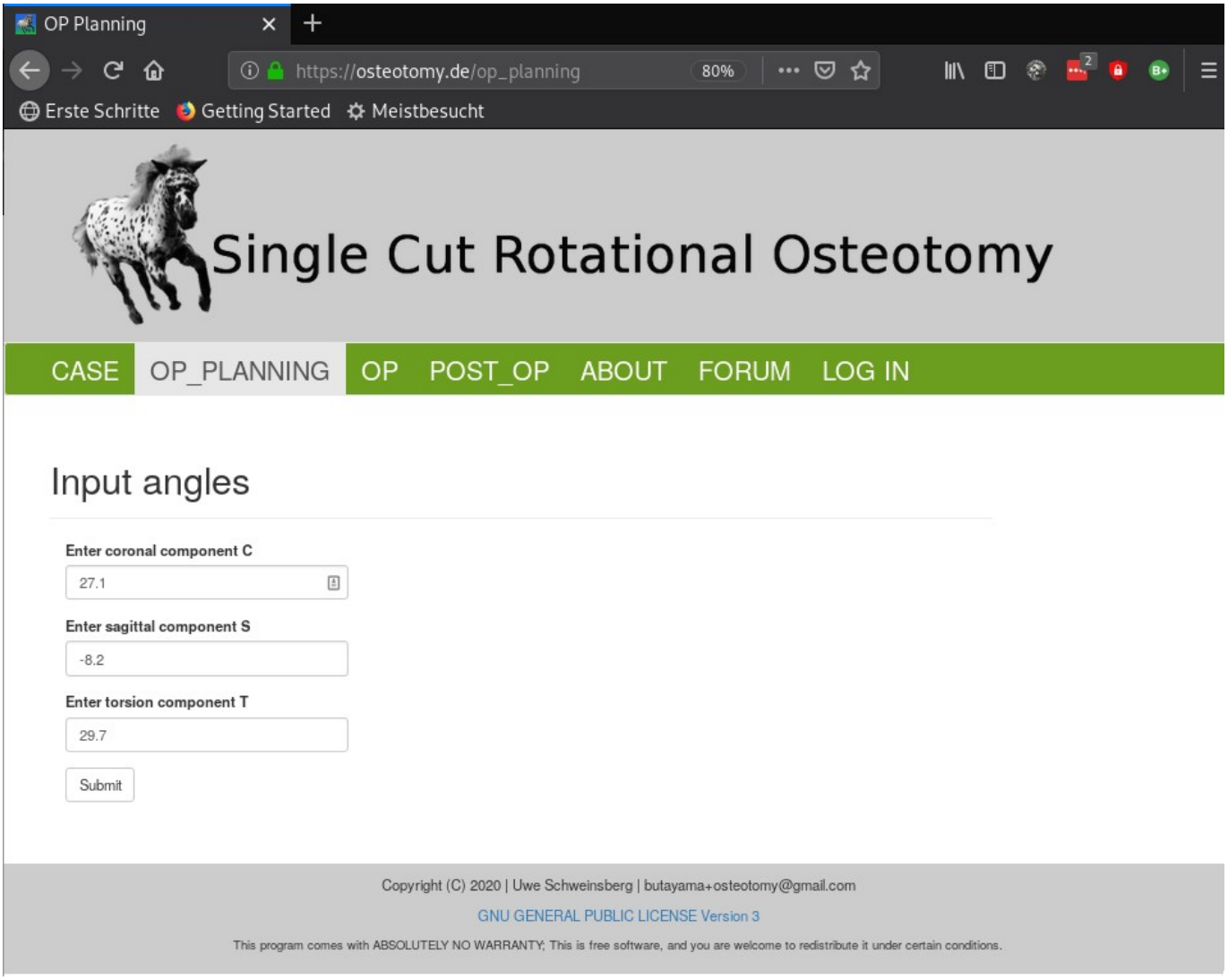
Password protected test versions of the Osteotomy and the Documentation website are already online.

The web framework Flask

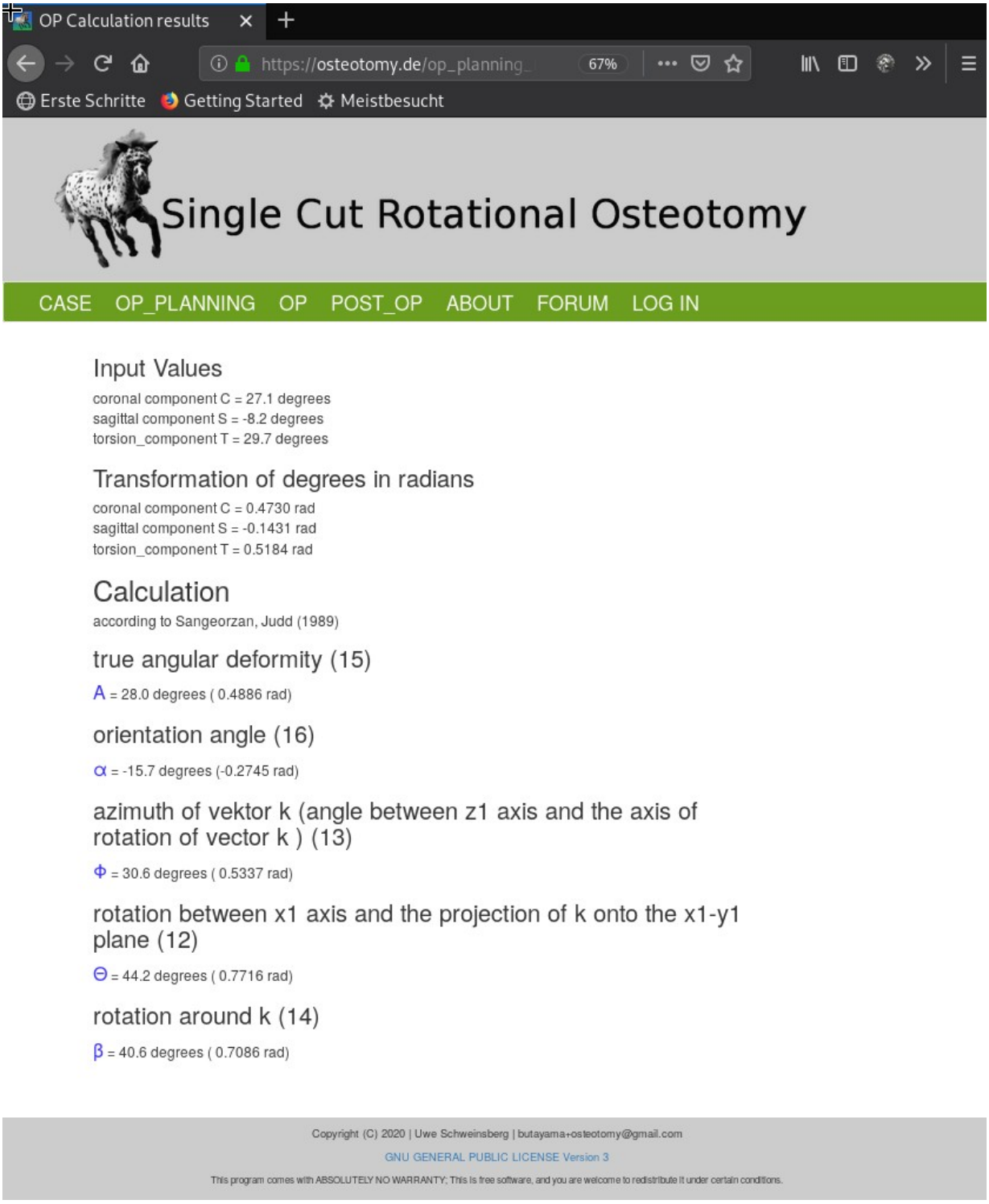
Project Homepage. Tutorials used: Flask Web Development by Miguel Grinberg (O'Reilly) and the Flask Mega-Tutorial.

Flask is writen in Python and licensed under BSD License

Structure of Osteotomy_web

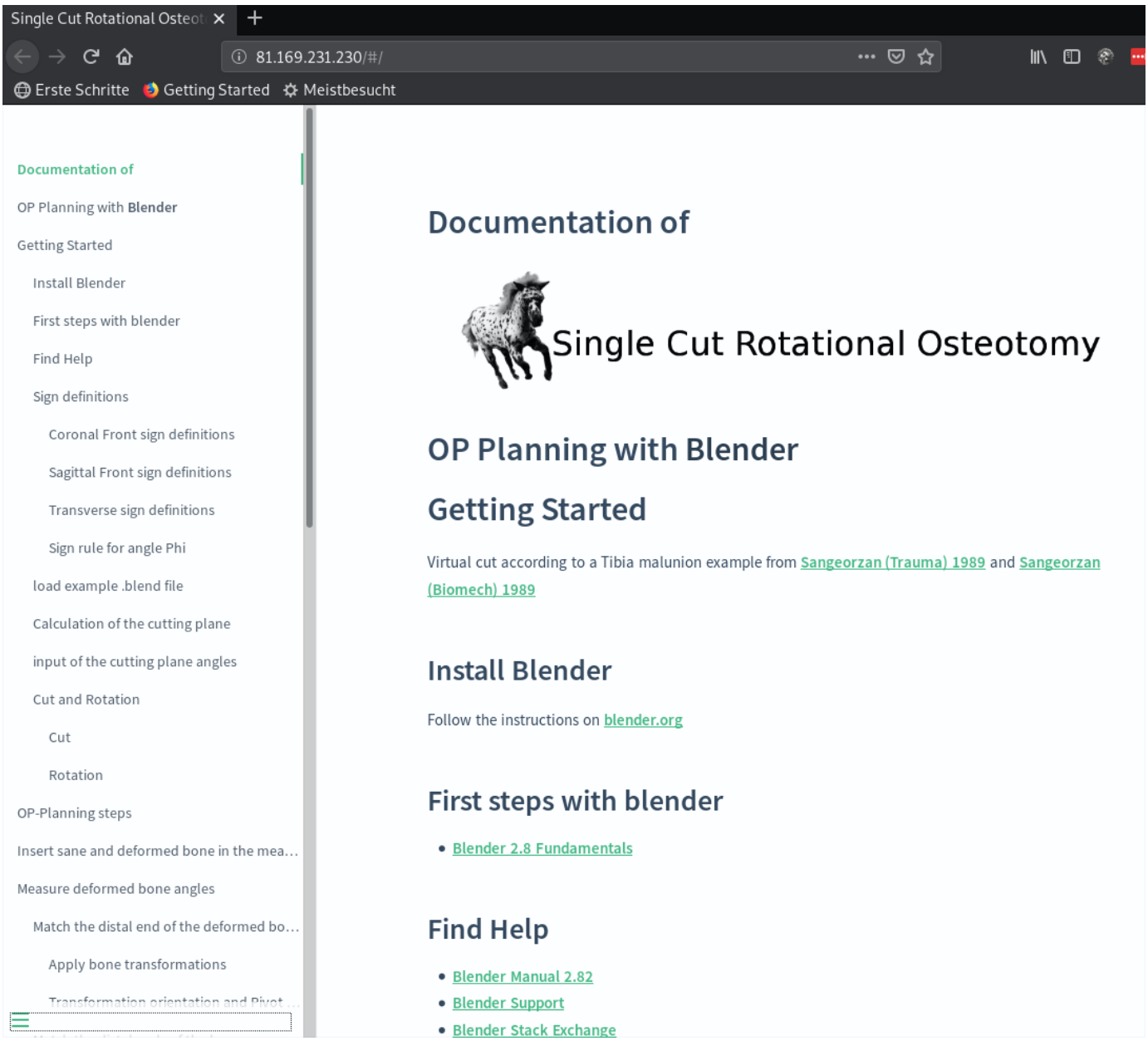


Calculation result



Documentation of OP-Planning with Blender

The documentation is rendered with docsify.



Blender is a 3D creation suite. It is used for angle measurement of 3D bone models and virtual OP procedures.

Authentication and security

- Flask-Login: Management of user sessions for logged-in users
- Werkzeug: Password hashing and verification

- itsdangerous: Cryptographically secure token generation and verification
- assignment of user roles according to permissions in a Flask-SQLAlchemy (MySQL) database.
- Forms are protected against CSRF with a form.hidden_tag() element and secret key.
- The secret key is stored in an environment variable.
- Secure https connection with valid certificate (test-version: Let's Encrypt)

Testing

- 35 test modules achieve a coverage of 62%.

ToDo

- Integration of the documentation into osteotomy_web.
- A cookie confirmation info still has to be implemented.