



PSSOH

Implementacija i korišćenje otvorenih istraživačkih podataka za istraživače

Praktični zadaci za polaznike: Pristup otvorenim istraživačkim podacima

Nadica Miljković, Ljiljana B. Lazarević, Obrad Vučkovic, Milica Ševkušić

ZADATAK 1

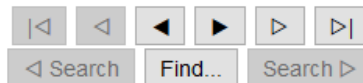
DataCite zadatak

- Pronađite neinvazivne elektrokardiografske (EKG) snimke fetusa primenom pretraživača u DataCite platformi (<https://datacite.org/>). Koristiti sledeće parametre:
 - Dataset (Resource type)
 - Physionet (Data Center)
- U kom formatu se nalaze podaci?
- Kako se mogu prikazati podaci u pretraživaču?
- Kako treba citirati ove podatke?

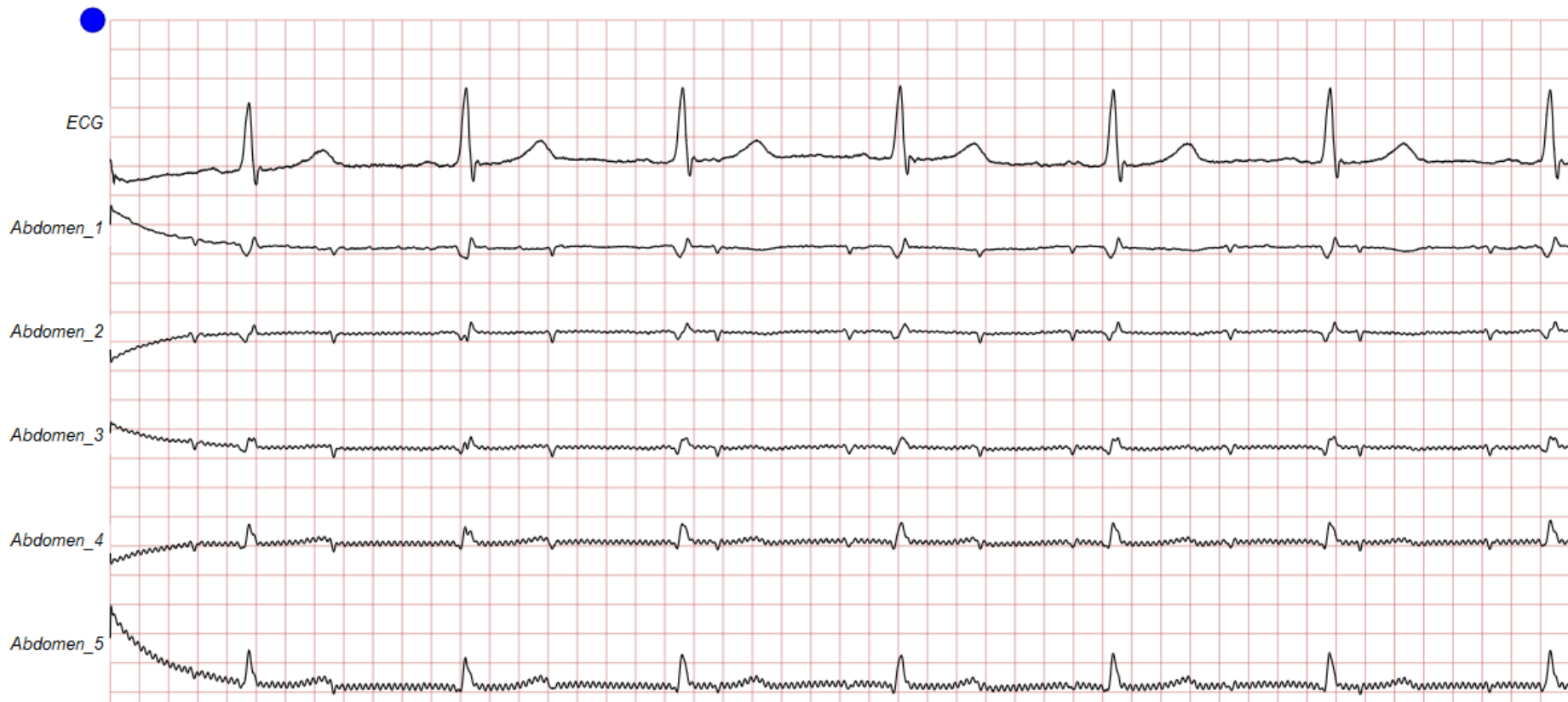


DataCite rešenje

Go to:



.../1.0.0/ARR_06
00:00:09.396



DataCite rešenje

2.1. WHAT DO THESE FILE FORMATS MEAN? WHICH FILES ARE THE DATA AND/OR ANNOTATIONS?

The data and annotations in most PhysioBank databases are stored in a Waveform Database (WFDB) format, which contains two standard categories:

MIT Format

- MIT Signal files ([.dat](#)) are binary files containing samples of digitized signals. These store the waveforms, but they cannot be interpreted properly without their corresponding header files. These files are in the form: *RECORDNAME.dat*.
- MIT Header files ([.hea](#)) are short text files that describe the contents of associated signal files. These files are in the form: *RECORDNAME.hea*.
- MIT Annotation files are binary files containing annotations (labels that generally refer to specific samples in associated signal files). Annotation files should be read with their associated header files. If you see files in a directory called *RECORDNAME.dat*, or *RECORDNAME.hea*, any other file with the same name but different extension, for example *RECORDNAME.atr*, is an annotation file for that record.

DataCite rešenje

Files



















Total uncompressed size: 177.7 MB.

Access the files

- [Download the ZIP file \(177.7 MB\)](#)
- Download the files using your terminal: `wget -r -N -c -np https://alpha.physionet.org/files/nifeadb/1.0.0/`

[Visualize waveforms](#)

Folder Navigation: <base>

Name		Size	Modified
 ARR_01.dat		6.9 MB	2019-04-17
 ARR_01.he		400 B	2019-04-17
 ARR_02.dat		6.9 MB	2019-04-17
 ARR_02.he		406 B	2019-04-17
 ARR_03.dat		8.7 MB	2019-04-17
 ARR_03.he		399 B	2019-04-17
 ARR_04.dat		6.9 MB	2019-04-17
 ARR_04.he		396 B	2019-04-17
 ARR_05.dat		5.5 MB	2019-04-17

<https://physionet.org/content/nifeadb/1.0.0/>

DataCite rešenje

PhysioNet


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Database  Open Access

Non-Invasive Fetal ECG Arrhythmia Database

Joachim Behar 

Published: Feb. 19, 2019. Version: 1.0.0

When using this resource, please cite the original publication:

Behar JA, Bonnemains L, Shulgin V, Oster J, Ostras O, Lakhno I. Noninvasive fetal electrocardiography for the detection of fetal arrhythmias. *Prenatal diagnosis*. 2019 Jan 2.

Please include the standard citation for PhysioNet:

Goldberger AL, Amaral LAN, Glass L, Hausdorff JM, Ivanov PCh, Mark RG, Mietus JE, Moody GB, Peng C-K, Stanley HE. PhysioBank, PhysioToolkit, and PhysioNet: Components of a New Research Resource for Complex Physiologic Signals (2003). *Circulation*. 101(23):e215-e220.

Introduction

Fetal cardiac arrhythmias are defined as any irregular fetal cardiac rhythm or regular rhythm at a rate outside the reference range of 100 to 200 beat per minute (bpm). Arrhythmias are discovered in about 1% of fetuses with about 10% of these being considered potential sources of morbidity. Although

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Access Policy:

Anyone can access the files, as long as they conform to the terms of the specified license.

DataCite rešenje


electrocardiography


Non-Invasive Fetal ECG Arrhythmia Database



Joachim Behar
Dataset published 2019
Fetal cardiac arrhythmia
reference range of 100
about 10% of these be
some can cause fetal hydrops and lead to fetal death. This means that up to 1 fetus in 100 need their...

APA Harvard MLA Vancouver Chicago IEEE BibTeX RIS

Behar, J. (2019). *Non-Invasive Fetal ECG Arrhythmia Database* [Data set]. PhysioNet.
<https://doi.org/10.13026/C2CT0S>

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 <https://doi.org/10.13026/c2ctos>  Cite

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Non-Invasive Fetal ECG Arrhythmia Database

Joachim Behar

Dataset published 2019 via PhysioNet

Fetal cardiac arrhythmias are defined as any irregular fetal cardiac rhythm or regular rhythm at a rate outside the reference range of 100 to 200 beat per minute (bpm). Arrhythmias are discovered in about 1% of fetuses with about 10% of these being considered potential sources of morbidity. Although most fetal arrhythmias are benign, some can cause fetal hydrops and lead to fetal death. This means that up to 1 fetus in 100 need their...

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 <https://doi.org/10.13026/c2ct0s>  Cite

ZADATAK 2

Zenodo zadatak

- Pronaći na Zenodu (<https://zenodo.org/>) podatke za fetalni EKG koji je sniman kod morskog praseta (eng. *guinea pig*).
- Podaci (dataset) bi trebalo da su otvoreni.
- U kom formatu su podaci?
- Da li uočavate neke metapodatke?
- Statistika?
- Koja je licenca dodeljena podacima?



Zenodo rešenje

Files (37.3 GB)

Name	Size	
Fetal Day 60-64 Soleus Parameters.xlsx	8.7 kB	Download
md5:392d76d79da5fa8b52dd1323736772f9 ⓘ		
Fetal Day 60-64 Soleus.zip	37.3 GB	Preview Download
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Beta

Citations 0

Show only: Literature (0) Dataset (0) Software (0) Unknown (0)

Citations to this version

Search



No citations.

Versions

Version 1 Sep 26, 2018
10.5281/zenodo.1435536

Cite all versions? You can cite all versions by using the DOI [10.5281/zenodo.1435536](https://doi.org/10.5281/zenodo.1435536). This DOI represents all versions, and will always resolve to the latest one. [Read more.](#)

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Cite as

Cocks, Erin. (2018). SBF-SEM Dataset of Guinea Pig Fetal Day 60-64 Soleus Muscle [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.1435536>

Start typing a citation style...

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Zenodo rešenje

September 26, 2018

Dataset **Open Access**

SBF-SEM Dataset of Guinea Pig Fetal Day 60-64 Psoas Muscle

Cocks, Erin

Multiple SBF-SEM datasets from 3 Duncan hartley guinea pig fetal day 60-64 psoas muscle. Parameters for each of the datasets are attached as a spreadsheet, including nm resolution, image size, number of sections and section thickness.

Preview

! Zipfile is not previewable.

15

views

12

downloads

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Publication date:

September 26, 2018

DOI:

DOI [10.5281/zenodo.1435532](https://doi.org/10.5281/zenodo.1435532)

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- Embargoed (20)
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File Type

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- Png (1768)
- Jpg (873)
- Html (156)
- Wav (122)
- Xml (112)

September 26, 2018 (v1) Dataset Open Access

SBF-SEM Dataset of Guinea Pig Fetal Day 60-64 Psoas Muscle

Cocks, Erin;

Multiple SBF-SEM datasets from 3 Duncan hartley guinea pig fetal day 60-64 psoas muscle. Parameters for each of the datasets are attached as a spreadsheet, including nm resolution, image size, number of sections and section thickness.

Uploaded on September 26, 2018

View

September 26, 2018 (v1) Dataset Open Access

SBF-SEM Dataset of Guinea Pig Fetal Day 60-64 Soleus Muscle

Cocks, Erin;

Multiple SBF-SEM datasets from 3 Duncan hartley guinea pig fetal day 60-64 soleus muscle. Parameters for each of the datasets are attached as a spreadsheet, including nm resolution, image size, number of sections and section thickness.

Uploaded on September 26, 2018

View

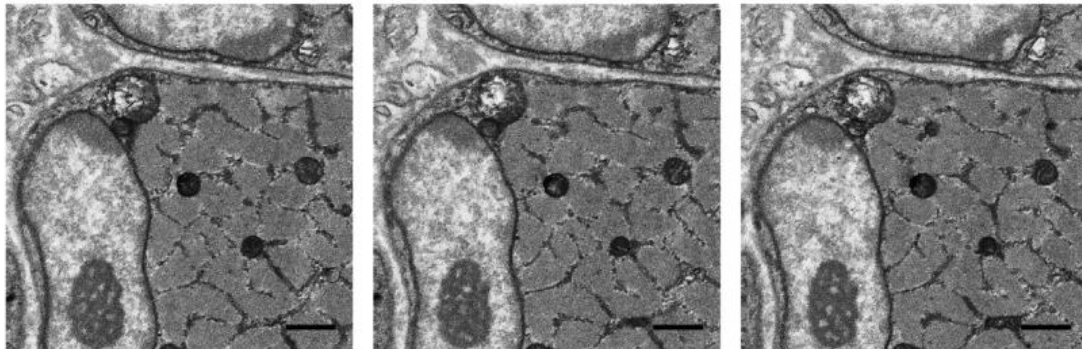
September 26, 2018 (v1) Dataset Open Access

View



Zenodo – korekcija rešenja

- A metapodaci?
- Da li imate dovoljno informacija?
- Da li ste našli pravo rešenje?
- Ima li pravog rešenja?
 - Kako znate?
- Kako bi ste Vi otvorili Vaše podatke?
- Malopre: slike ćelija mišića fetusa morskog praseta.
 - SBF-SEM je Serial Block Face Scanning Electro Microscopy
 - Slika: Cocks E, Taggart M, Rind FC, White K. A guide to analysis and reconstruction of serial block face scanning electron microscopy data. Journal of microscopy. 2018 May;270(2):217-34,
<https://onlinelibrary.wiley.com/doi/pdf/10.1111/jmi.12676>



ZADATAK 3

Google Dataset Search zadatak

- Pronaći na Google Dataset pretraživaču (<https://toolbox.google.com/datasetsearch>) sintetičke podatke za fetalni EKG koji je sniman neinvazivno na ljudima. Više o ovom alatu na:
 - Castelvechi, Davide (2018-09-05). "[Google unveils search engine for open data](#)". Nature. **561** (7722): 161–162. [doi:10.1038/d41586-018-06201-x](#). [ISSN 0028-0836](#). [PMID 30206390](#).
- Da li su svi podaci primarni?
- Da li postoje podaci u EDF+ formatu? Koji je to format?
- Da li su neki podaci deljeni kao .zip?

Google Dataset Search rešenje

Google Dataset Search

non-invasive fetal ecg



About

7 results found

P

Non-Invasive Fetal ECG Database

physionet.org
search.datacite.org

Published Sep 6, 2007

P

Non-Invasive Fetal ECG Arrhythmia Database

physionet.org

Published Feb 19, 2019

D

Fetal ECG Synthetic Database

datamed.org

Non-Invasive Fetal ECG Arrhythmia Database

[Explore at physionet.org](#)

Unique identifier

<https://doi.org/10.13026/C2CT0S>

Dataset published Feb 19, 2019

Authors

Joachim Behar

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Description

Fetal cardiac arrhythmias are defined as any irregular fetal cardiac rhythm or regular rhythm at a rate outside

Google Dataset Search rešenje

Search for data through BioCADDIE



Search for data set Search for repository

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PHYSIOBANK

Title: Non-Invasive Fetal Electrocardiogram Database [PHYSIOBANK](#)

Dataset

description: Non-Invasive Fetal Electrocardiogram Database. Fifty-five recordings of maternal and maternal+fetal ECGs recorded over a 20-week period from a single subject, in EDF+ format.

Related Publications

Recovery of the fetal electrocardiogram for morphological analysis from ...

Physiol Meas, 2019 Oct 4

Non-invasive fetal monitoring using electrocardiography and phonocardiog...

J Gynecol Obstet Hum Reprod, 2018 Nov

Comparative Effectiveness of ICA and PCA in Extraction of Fetal ECG From...

Google Dataset Search rešenje

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Evaluation results using **Abdominal and Direct Fetal ECG Database 5-minute recordings as training data (data for the best performing channel in each recording are shown in bold characters).**

Dataset posted on 22.06.2018, 19:25 by Encarnación Castillo, Diego P. Morales, Antonio García, Luis Parrilla, Víctor U. Ruiz, José A. Álvarez-Bermejo

Evaluation results using *Abdominal and Direct Fetal ECG Database 5-minute recordings as training data (data for the best performing channel in each recording are shown in bold characters).*

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views

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citations



READ THE PEER-REVIEWED PUBLICATION

A clustering-based method for single-channel fetal heart rate monitoring



https://figshare.com/articles/Evaluation_results_using_i_Abdominal_and_Direct_Fetal_ECG_Database_i_5-minute_recordings_as_training_data_data_for_the_best_performing_channel_in_each_recording_are_shown_in_bold_characters_/6653822/1



PSSOH

Otvoreni istraživački podaci

Nadica Miljković, Ljiljana B. Lazarević, Obrad Vučkovic, Milica Ševkušić

PSSOH post-conference workshop

URL: <http://pssoh.etf.bg.ac.rs/>

