

# INVENIO + OBELIX

David Zerulla

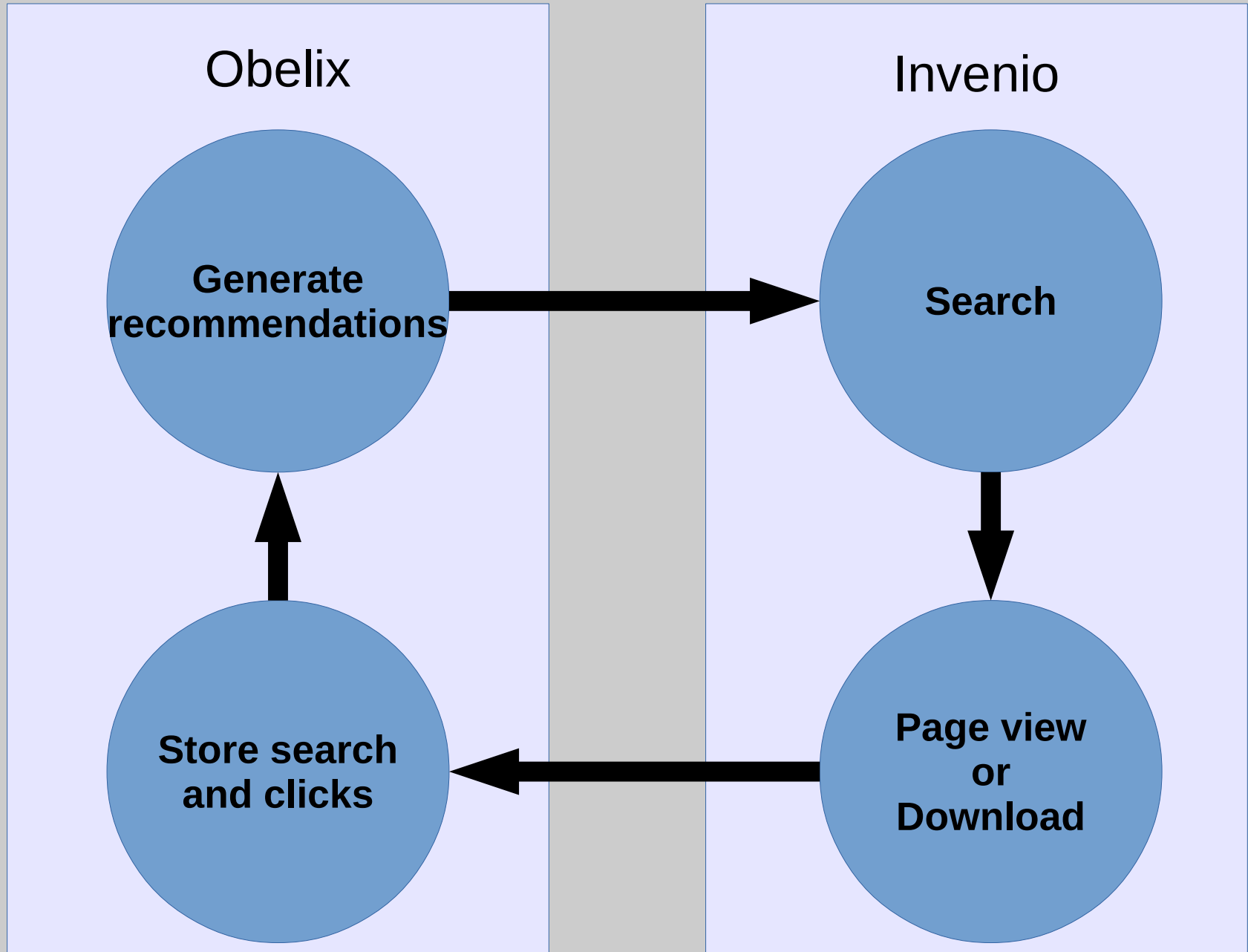
- What is Obelix?
- How does it work?
- How to use it?
- What is in the future?

# What is Obelix?

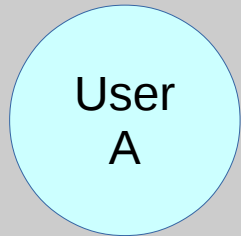
a personalized recommendation engine.

- Analyzes the user behavior and recommends related records.
- In-dependent of Invenio, developed in Java.
- Its using Neo4j (a graph database).
- Binding to Invenio with the Obelix-Client.
- Development started by Fredrik Carlsen.

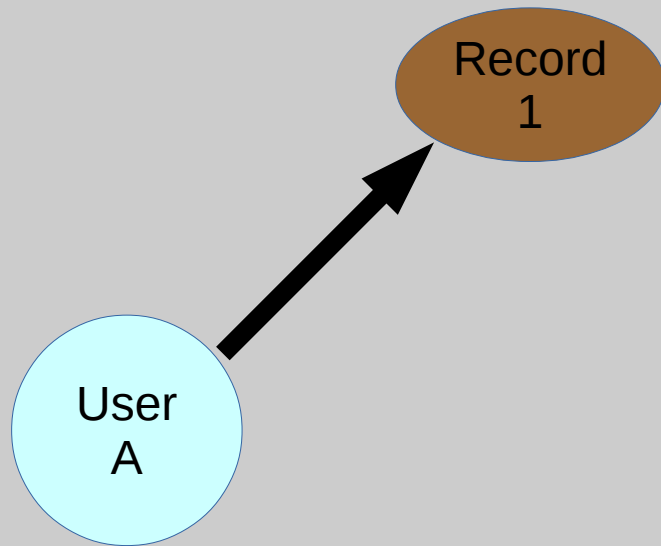
# How does it work?



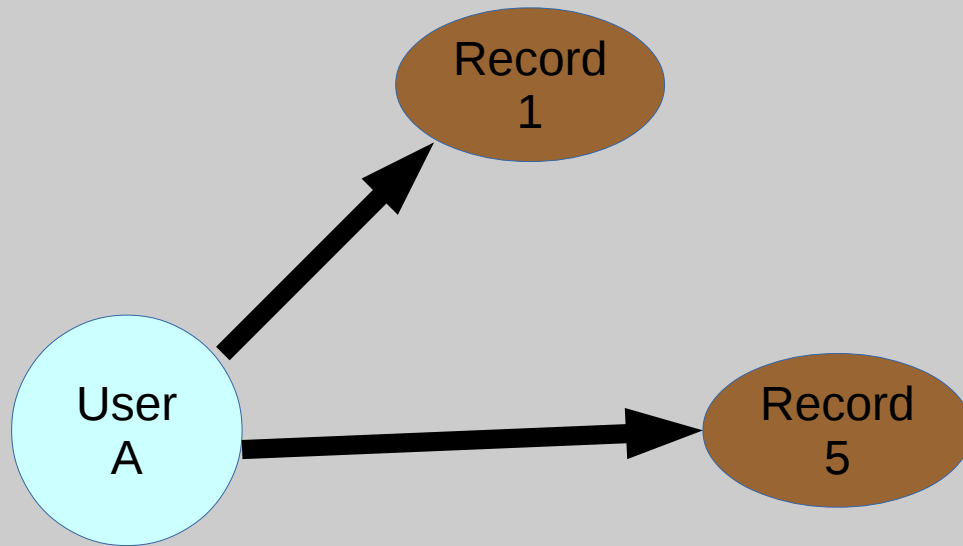
# How does it work?



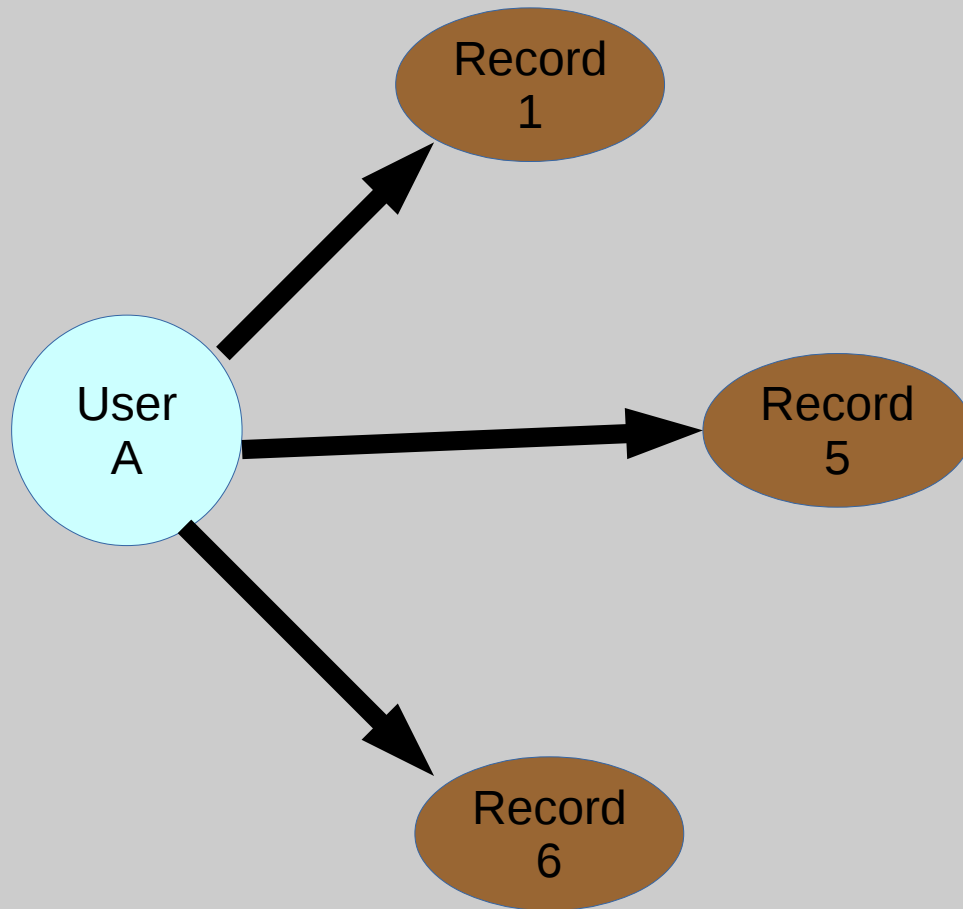
# How does it work?



# How does it work?

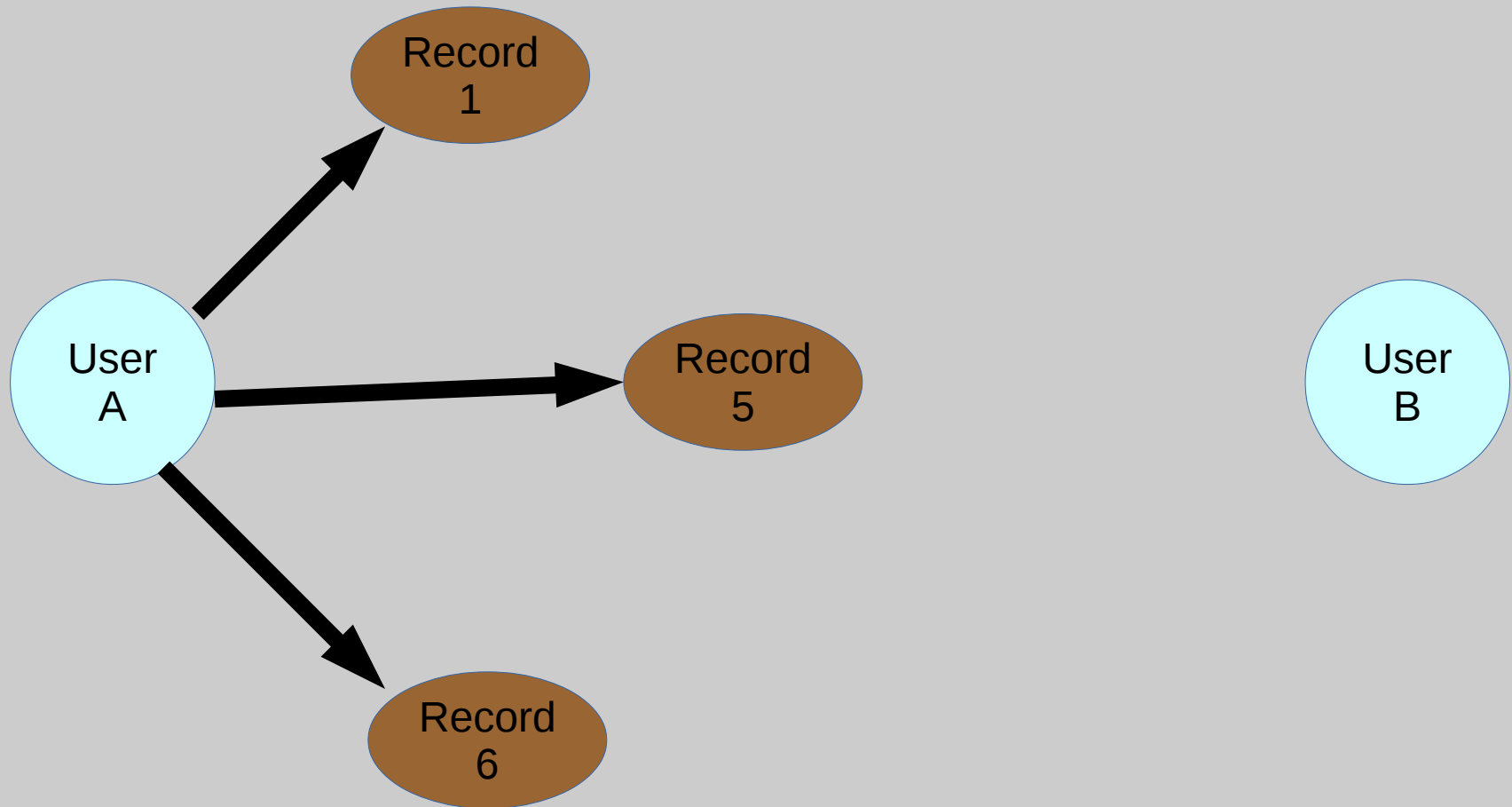


# How does it work?

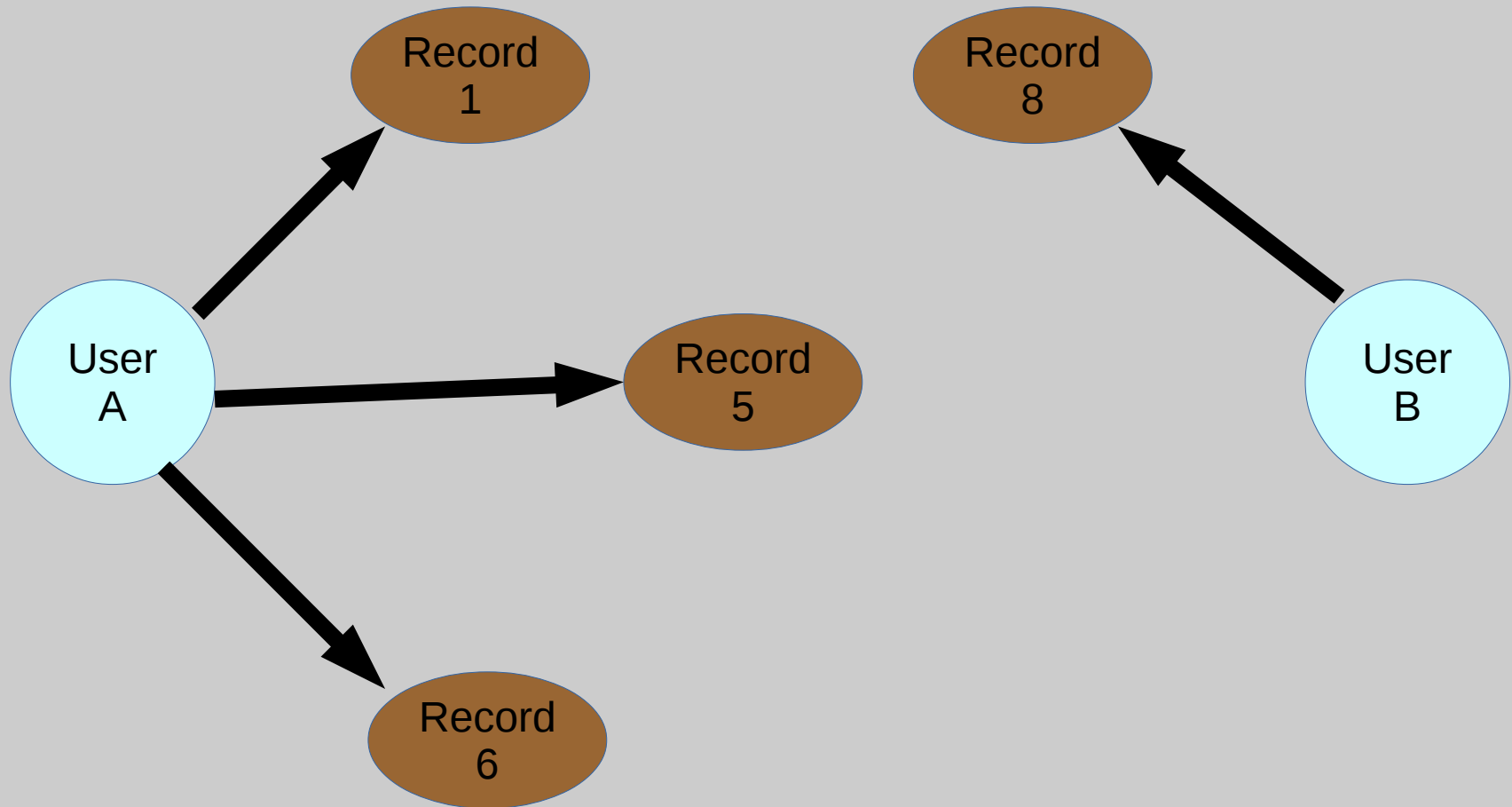




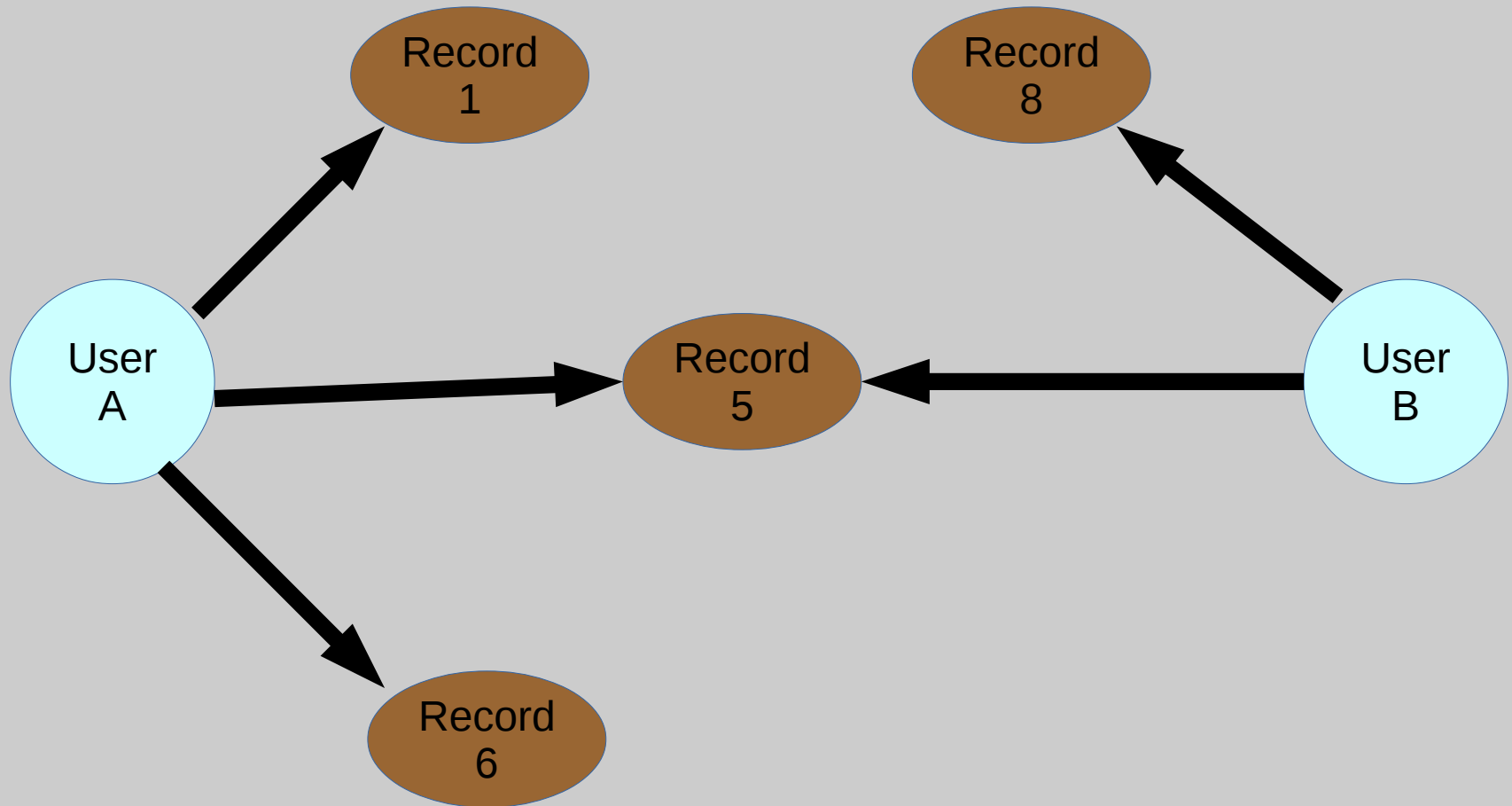
# How does it work?



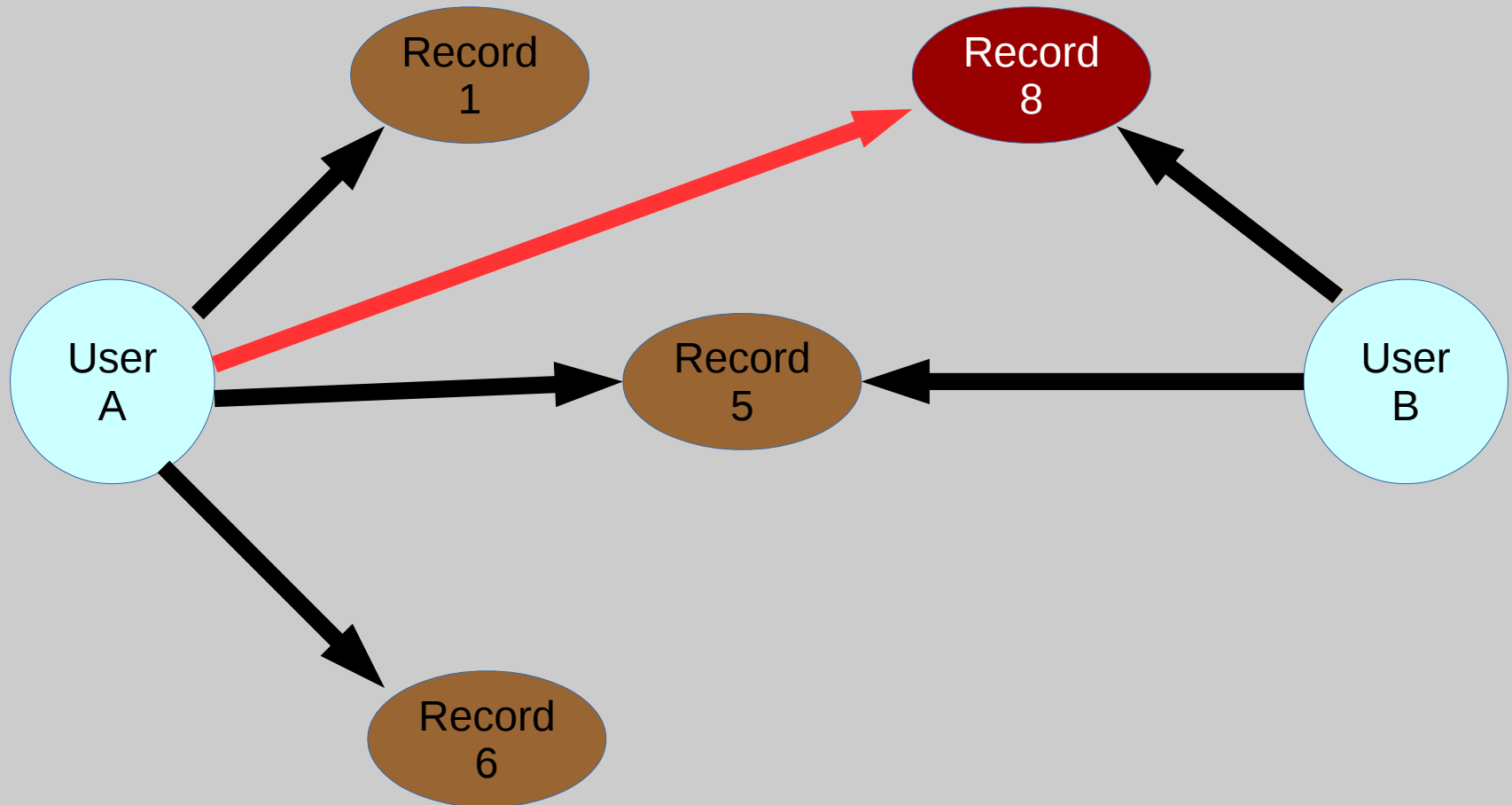
# How does it work?



# How does it work?



# How does it work?



# How to use it?

## On the Invenio side:

- Invenio 1.x required
  - PR #3203 WebSearch: optional Obelix integration
- Obelix-Client - [github.com/inveniosoftware/obelix](https://github.com/inveniosoftware/obelix)

## On the Obelix side:

- Obelix - [github.com/inveniosoftware/obelix-client](https://github.com/inveniosoftware/obelix-client)
- Redis
- Neo4j

# What is in the future?

- Integration in Invenio 2
- Different approaches to generate the recommendations
- Recommendation box

## CERN Document Server

Search

Submit

Help

Personalize

**TEST**Home > Articles & Preprints > Published Articles > Study of the threshold behavior of the  $\eta N$  scattering amplitude through the associated photoproduction of  $\phi$ - and  $\eta$ -mesons

Information

Discussion (0)

Files

## Article

Report number

nucl-th/0607019 ; DAPNIA-2006-160

Title

**Study of the threshold behavior of the  $\eta N$  scattering amplitude through the associated photoproduction of  $\phi$ - and  $\eta$ -mesons**

Author(s)

Soyeur, M ; Lutz, M F M

Imprint

2006. - 8 p.

In:

*Int. J. Mod. Phys. A* 22 , 2-3 (2007) 333-340

In:

9th International Workshop on Meson Production, Properties and Interaction, Krakow, Poland, 9 - 13 Jun 2006, pp.333-340

Subject category

Nuclear Physics

Abstract

We suggest that the  $\gamma p \rightarrow \phi \eta p$  reaction cross section, in the kinematics where the  $\eta p$  invariant mass in the final state lies between the threshold value ( $m_\phi + m_\eta$ ) and the  $N^*(1535)$  resonance mass, is largely determined by the  $\eta N$  scattering amplitude close to threshold. The initial photon energy is chosen in the range  $4 < E_\gamma^{lab} < 5$  GeV, in order to reach low (absolute) values of the squared 4-momentum transfer from the initial photon to the final  $\phi$ -meson. In these conditions, we expect the t-channel  $\pi^0$ - and  $\eta$ -meson exchanges to drive the dynamics underlying the  $\gamma p \rightarrow \phi \eta p$  process. We show that the  $\eta$ -exchange is the dominating contribution to the cross section while the  $\pi^0$ -exchange is negligible. The  $\eta$ - $\pi^0$  interference is of the order of 20 – 30. The sign of this term is not known and alters significantly our results. Data on the  $\gamma p \rightarrow \phi \eta p$  process would be therefore very useful to help unravelling the behavior of the  $\eta p$  scattering amplitude close to threshold and assessing the possibility of producing  $\eta$ -nucleus bound states.

Corresponding record in: [Inspire](#)

Recommended Records:

*Please login for personalized recommendations*

- When almost all sets are difference dominated - by Hegarty, Peter; Miller, Steven J
- The measurement of the absolute branching ratio of the  $K^+$  [...] - by Ambrosino, F ; Antonelli, A ; Antonelli, M + 79 more
- KLOE measurement of the charged kaon absolute semileptonic BR's - by Ambrosino, F ; Antonelli, A ; Antonelli, M + 80 more

[Back to search](#)

Record created 2006-07-13, last modified 2010-04-14

[Similar records](#)

External links:

- [nucl-th/0607019 PDF](#)
- [Access to fulltext document](#)
- [Fulltext](#)

Rate this document:



(Not yet reviewed)

➔ [Add to personal basket](#)➔ Export as [BibTeX](#), [MARC](#), [MARCXML](#), [DC](#), [EndNote](#), [NLM](#), [RefWorks](#)

Share on social.cern.ch

## Article

Report number	nucl-th/0607019 ; DAPNIA-2006-160
Title	<b>Study of the threshold behavior of the <math>\eta N</math> scattering amplitude through the associated photoproduction of <math>\phi</math>- and <math>\eta</math>-mesons</b>
Author(s)	Soyeur, M ; Lutz, M F M
Imprint	2006. - 8 p.
In:	<i>Int. J. Mod. Phys. A</i> 22 , 2-3 (2007) 333-340
In:	9th International Workshop on Meson Production, Properties and Interaction, Krakow, Poland, 9 - 13 Jun 2006, pp.333-340
Subject category	Nuclear Physics
Abstract	We suggest that the $\gamma p \rightarrow \phi \eta p$ reaction cross section, in the kinematics where the $\eta p$ invariant mass in the final state lies between the threshold value ( $m_p + m_\eta$ ) and the $N^*(1535)$ resonance mass, is largely determined by the $\eta N$ scattering amplitude close to threshold. The initial photon energy is chosen in the range $4 < E_\gamma^{Lab} < 5$ GeV, in order to reach low (absolute) values of the squared 4-momentum transfer from the initial photon to the final $\phi$ -meson. In these conditions, we expect the t-channel $\pi^0$ - and $\eta$ -meson exchanges to drive the dynamics underlying the $\gamma p \rightarrow \phi \eta p$ process. We show that the $\eta$ -exchange is the dominating contribution to the cross section while the $\pi^0$ -exchange is negligible. The $\eta$ - $\pi^0$ interference is of the order of 20 – 30. The sign of this term is not known and alters significantly our results. Data on the $\gamma p \rightarrow \phi \eta p$ process would be therefore very useful to help unravelling the behavior of the $\eta p$ scattering amplitude close to threshold and assessing the possibility of producing $\eta$ -nucleus bound states.

Corresponding record in: [Inspire](#)

Recommended Records:

*Please login for personalized recommendations*

- [When almost all sets are difference dominated](#) - by Hegarty, Peter; Miller, Steven J
- [The measurement of the absolute branching ratio of the K+ \[...\]](#) - by Ambrosino, F ; Antonelli, A ; Antonelli, M + 79 more
- [KLOE measurement of the charged kaon absolute semileptonic BR's](#) - by Ambrosino, F ; Antonelli, A ; Antonelli, M + 80 more