Getting Users Onto Your Campus Cluster

Scott Koranda

Spherical Cow Group

April 28, 2014

Many campuses are now realizing the need to bring research computing to all researchers on campus.

Hopefully most make the decision to deploy HTCondor!

How do we manage getting users onto the cluster? (onboarding)

How do we manage offboarding users?

Onboarding/Offboarding/Enrollment/Registration

Standard approach: somebody pulls together a few scripts.

One size fits all approach for all users.

Then the reality hits:

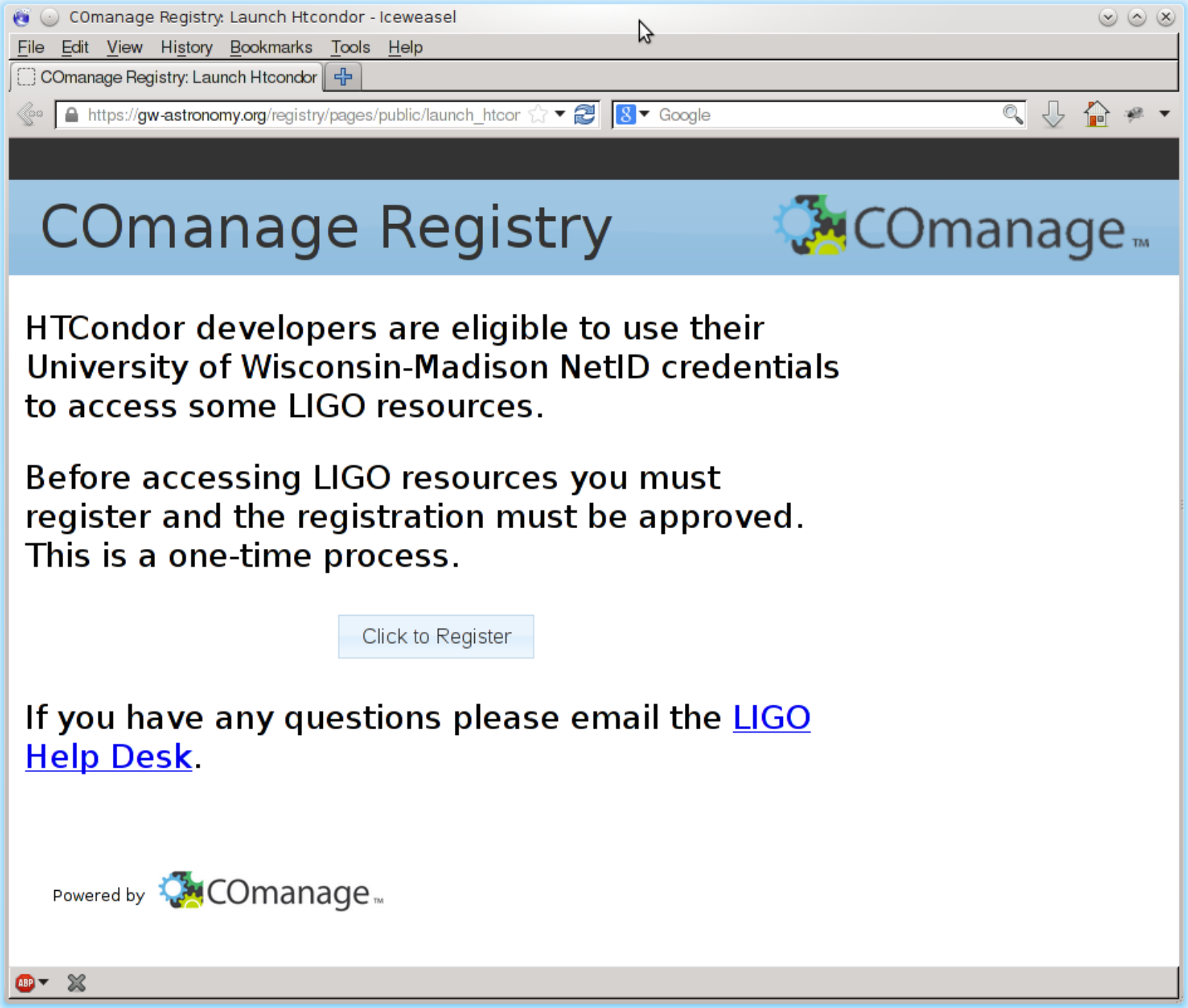
- Enrollment for faculty and students must be different.
- Instructors want to onboard students themselves.
- Different research teams want different enrollment policies.
- Important users want to bring on people from other campuses.
- Research teams want group based access controls.
- Need group based accounting.

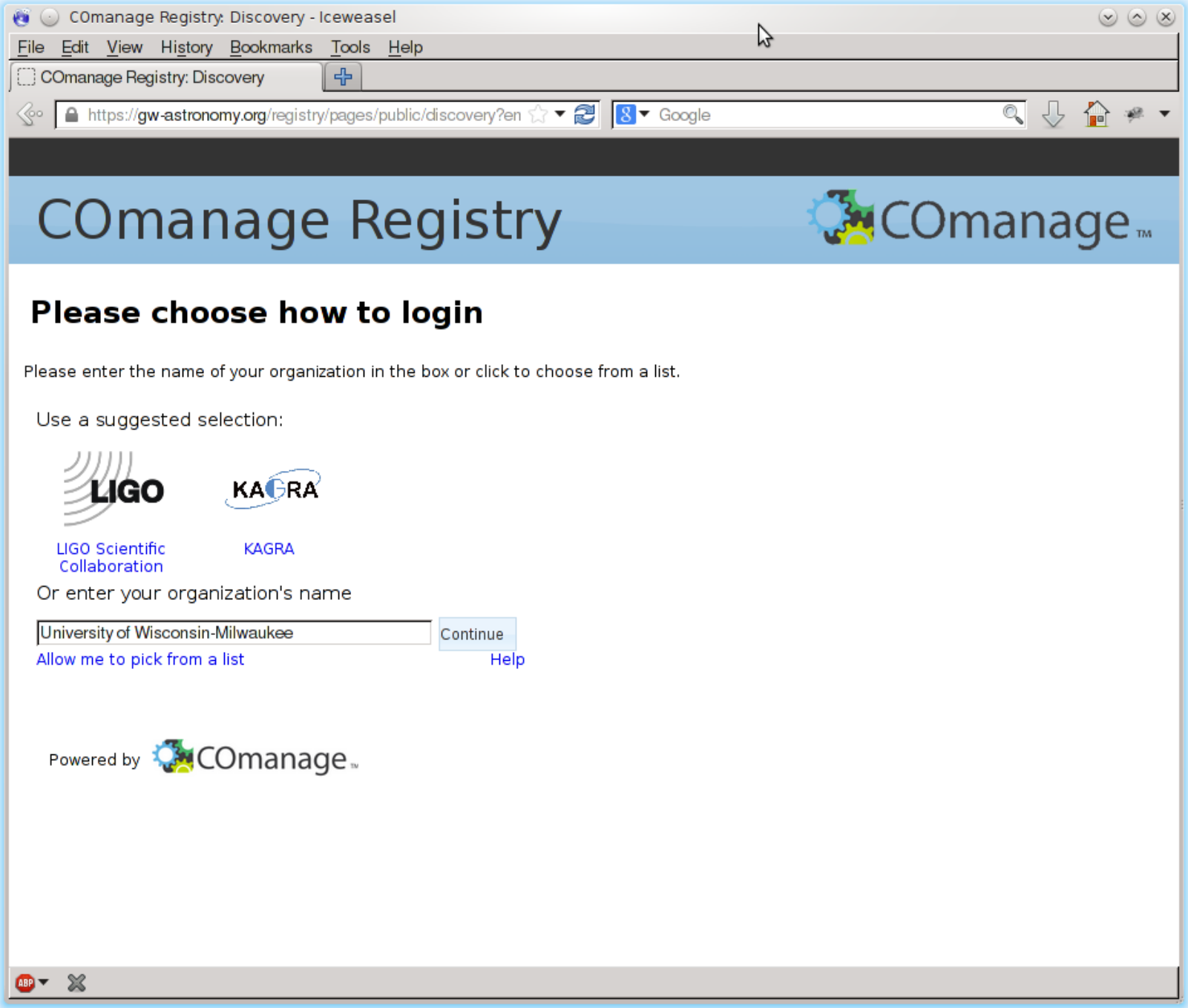
Each campus is solving this over and over again.

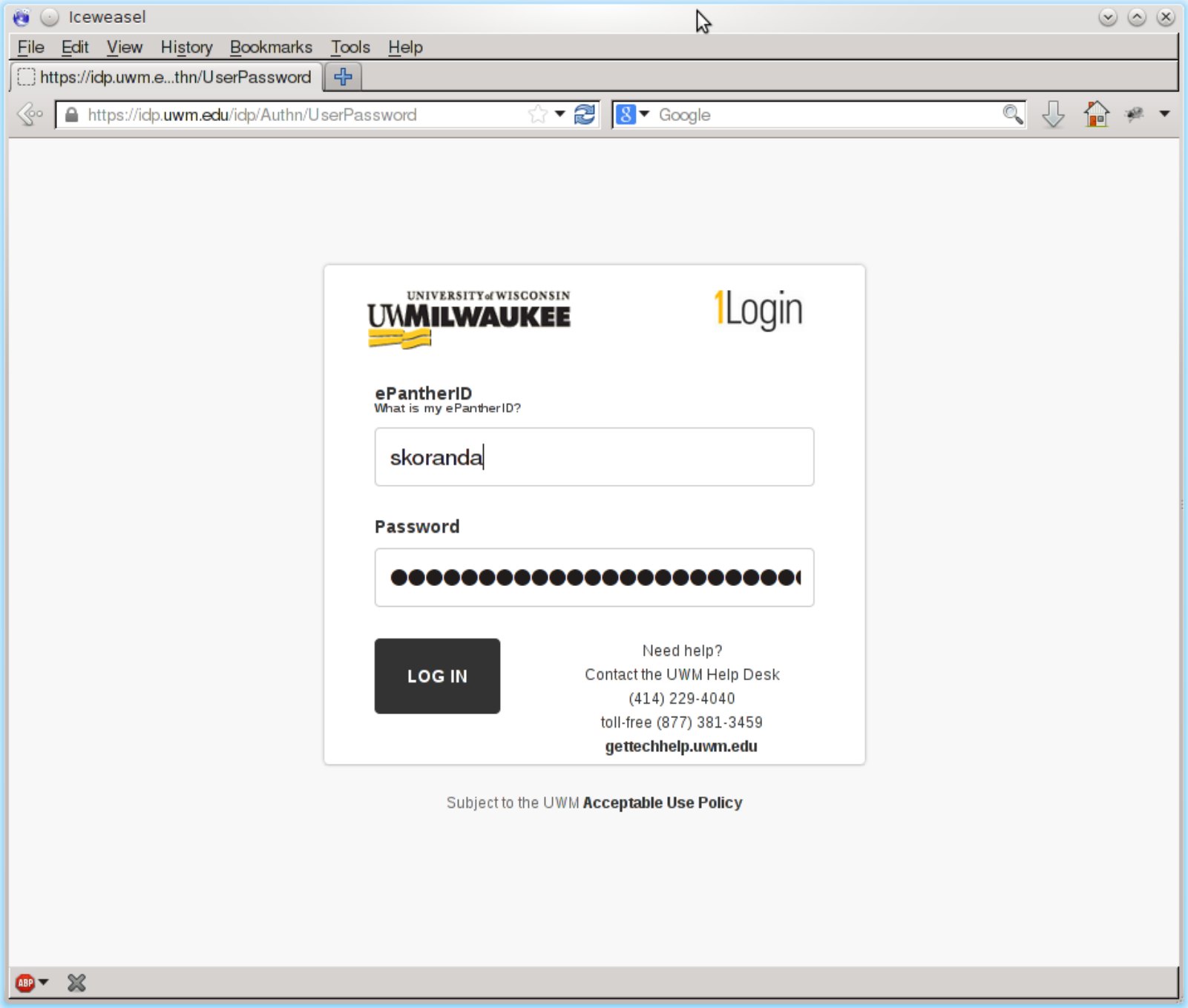
COmanage for Collaboration Management

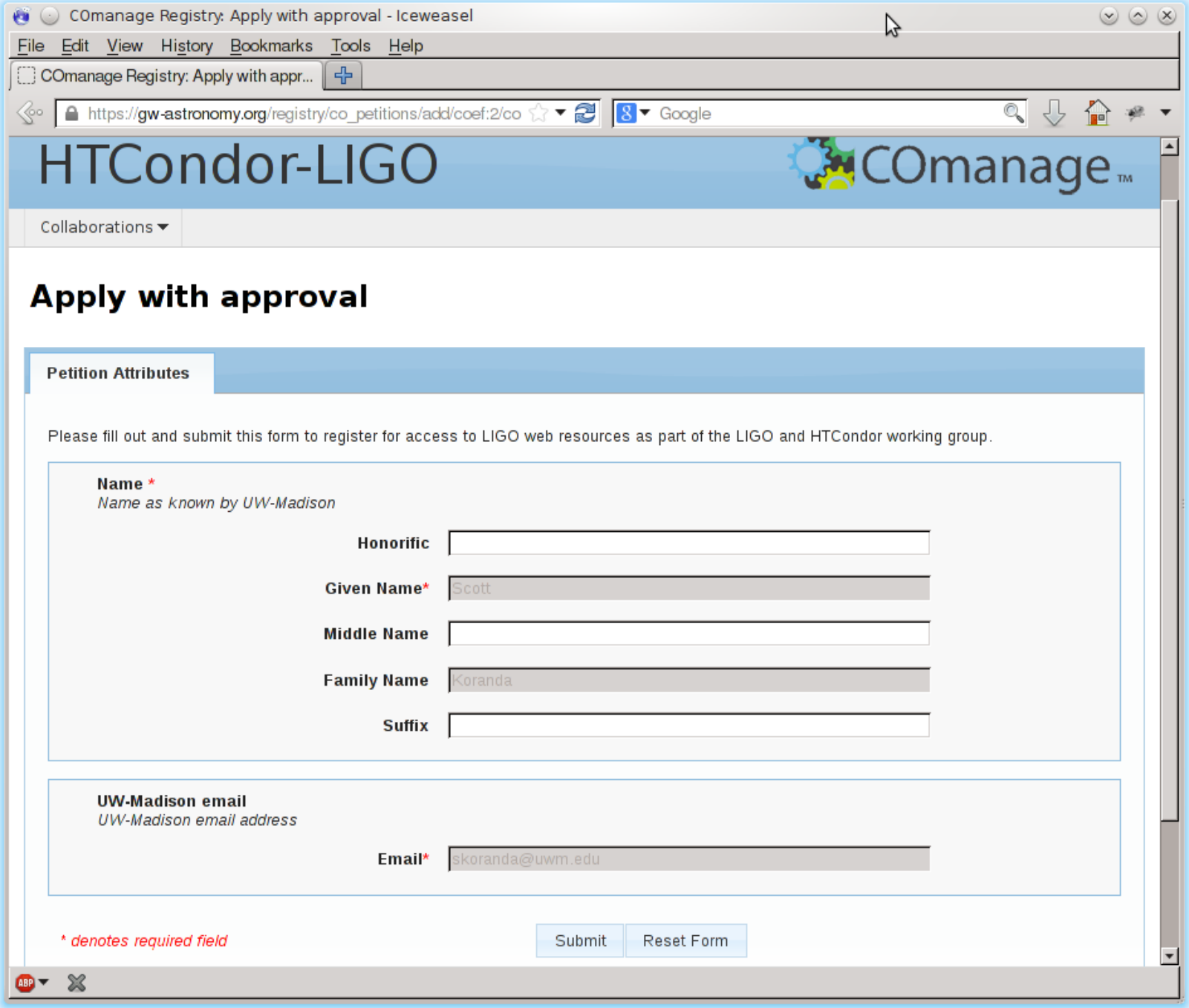
- Flexible, customizable, extensible enrollment flows.
- Group management.
- Provisioning engine designed so simple things are simple.

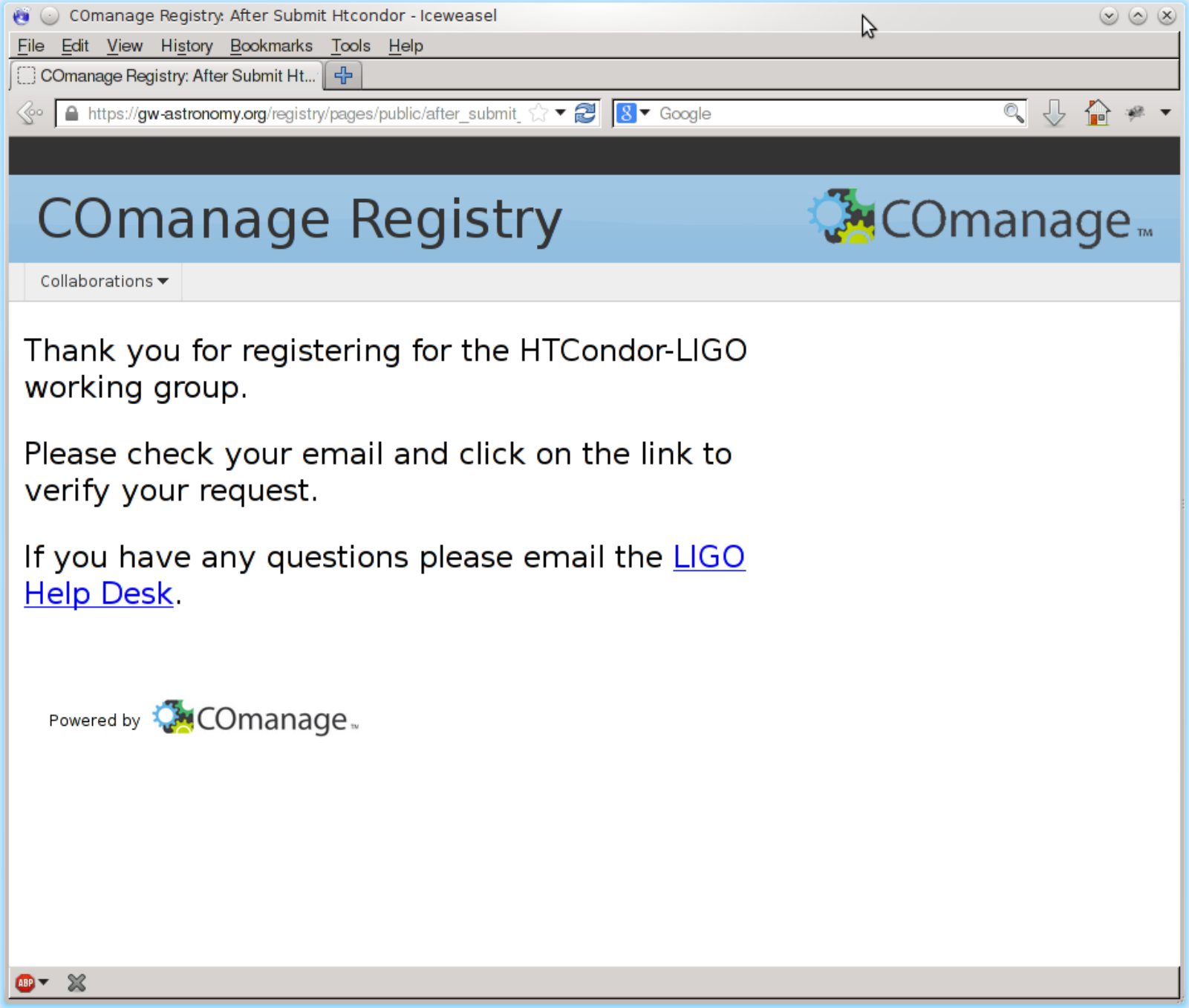
NSF funded project (ending this year).

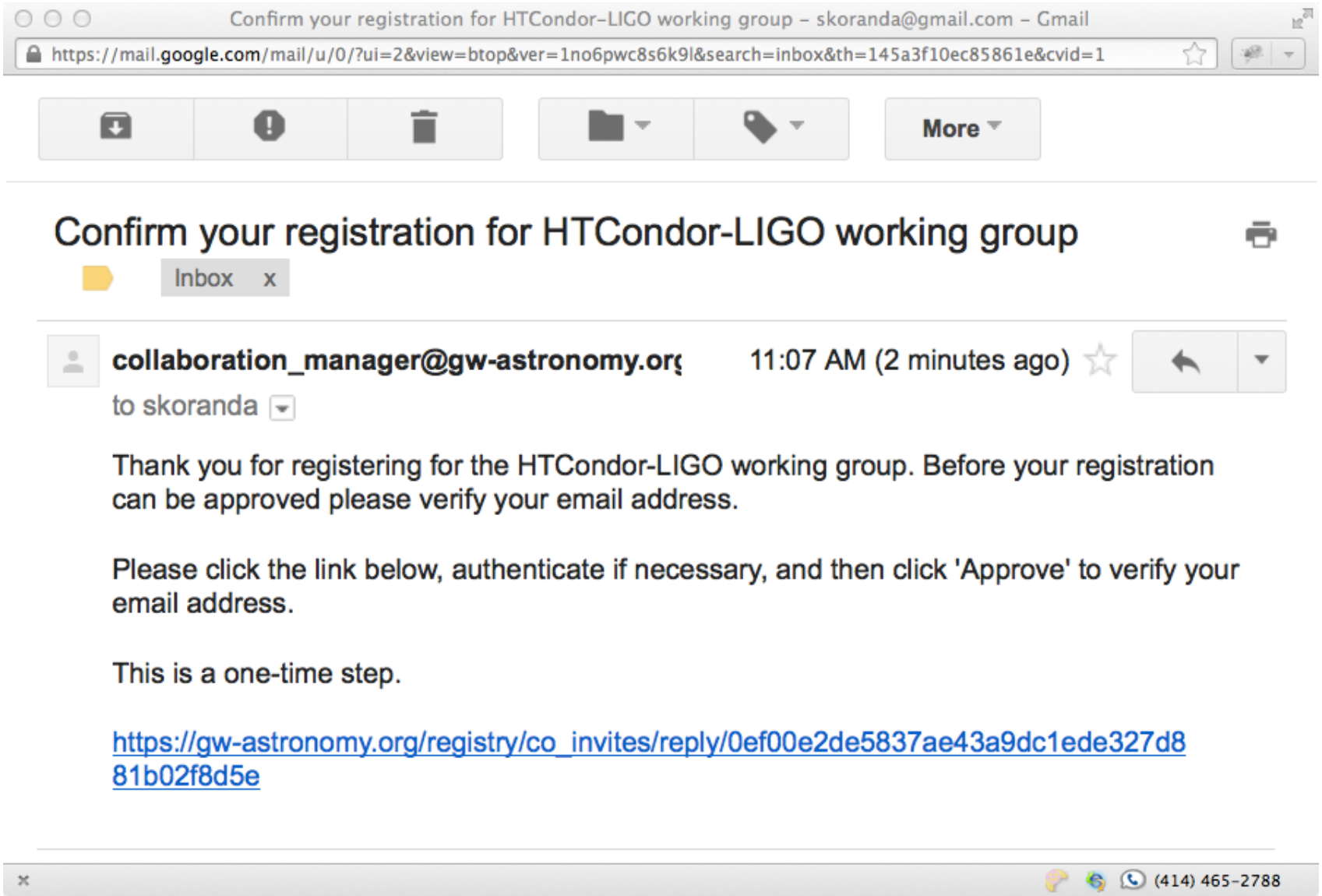

COmanage Registry: Launch Htcondor - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Launch Htcondor
https://gw-astronomy.org/registry/pages/public/launch_htcor
Google
COmanage Registry
COmanage
HTCondor developers are eligible to use their University of Wisconsin-Madison NetID credentials to access some LIGO resources.
Before accessing LIGO resources you must register and the registration must be approved. This is a one-time process.
Click to Register
If you have any questions please email the LIGO Help Desk.
Powered by COmanage

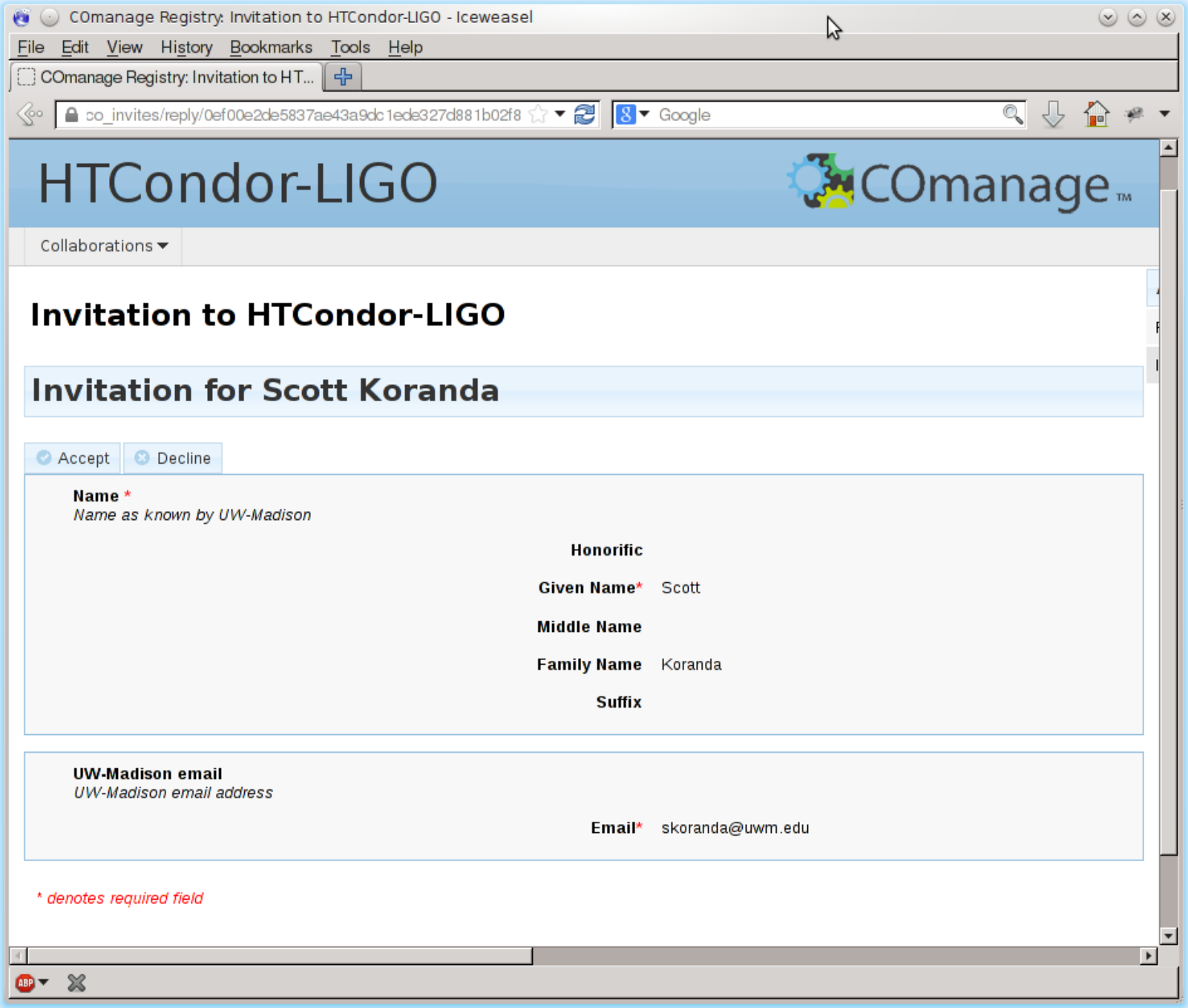

COmanage Registry: Discovery - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Discovery
https://gw-astronomy.org/registry/pages/public/discovery?en
Google
COmanage Registry
COmanage
Please choose how to login
Please enter the name of your organization in the box or click to choose from a list.
Use a suggested selection:
LIGO
KAGRA
LIGO Scientific Collaboration
KAGRA
Or enter your organization's name
University of Wisconsin-Milwaukee
Continue
Allow me to pick from a list
Help
Powered by COmanage

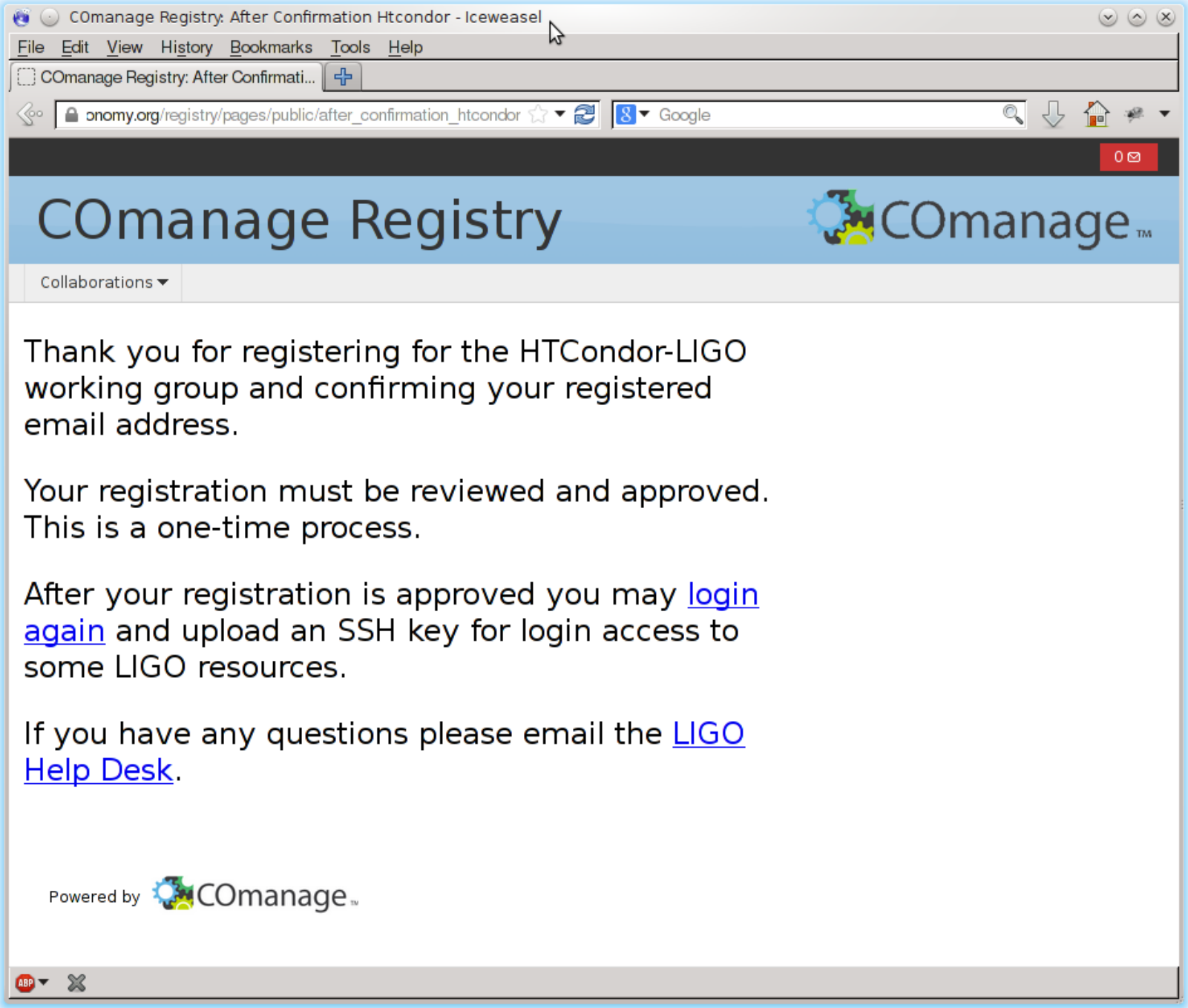

Iceweasel
File Edit View History Bookmarks Tools Help
https://idp.uwm.e...thn/UserPassword
https://idp.uwm.edu/idp/Authn/UserPassword
Google
UNIVERSITY of WISCONSIN
UWMILWAUKEE
1Login
ePantherID
What is my ePantherID?
skoranda
Password
LOG IN
Need help?
Contact the UWM Help Desk
(414) 229-4040
toll-free (877) 381-3459
gettechhelp.uwm.edu
Subject to the UWM Acceptable Use Policy


COmanage Registry: Apply with approval - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Apply with appr...
https://gw-astronomy.org/registry/co_petitions/add/coef:2/co
Google
HTCondor-LIGO
COmanage
Collaborations
Apply with approval
Petition Attributes
Please fill out and submit this form to register for access to LIGO web resources as part of the LIGO and HTCondor working group.
Name *
Name as known by UW-Madison
Honorific
Given Name*
Scott
Middle Name
Family Name
Koranda
Suffix
UW-Madison email
UW-Madison email address
Email*
skoranda@uwm.edu
* denotes required field
Submit
Reset Form


COmanage Registry: After Submit Htcondor - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: After Submit Ht...
https://gw-astronomy.org/registry/pages/public/after_submit_
Google
COmanage Registry
COmanage
Collaborations
Thank you for registering for the HTCondor-LIGO working group.
Please check your email and click on the link to verify your request.
If you have any questions please email the LIGO Help Desk.
Powered by COmanage


Confirm your registration for HTCondor-LIGO working group - skoranda@gmail.com - Gmail
https://mail.google.com/mail/u/0/?ui=2&view=btop&ver=1no6pwc8s6k9l&search=inbox&th=145a3f10ec85861e&cvid=1
More
Confirm your registration for HTCondor-LIGO working group
Inbox x
collaboration_manager@gw-astronomy.org
11:07 AM (2 minutes ago)
to skoranda
Thank you for registering for the HTCondor-LIGO working group. Before your registration can be approved please verify your email address.
Please click the link below, authenticate if necessary, and then click 'Approve' to verify your email address.
This is a one-time step.
https://gw-astronomy.org/registry/co_invites/reply/0ef00e2de5837ae43a9dc1ede327d881b02f8d5e
(414) 465-2788


COmanage Registry: Invitation to HTCondor-LIGO - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Invitation to HT...
co_invites/reply/0ef00e2de5837ae43a9dc1ede327d881b02f8
Google
HTCondor-LIGO
COmanage
Collaborations
Invitation to HTCondor-LIGO
Invitation for Scott Koranda
Accept
Decline
Name *
Name as known by UW-Madison
Honorific
Given Name* Scott
Middle Name
Family Name Koranda
Suffix
UW-Madison email
UW-Madison email address
Email* skoranda@uwm.edu
* denotes required field


COmanage Registry: After Confirmation Htcondor - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: After Confirmati...
onomy.org/registry/pages/public/after_confirmation_htcondor
Google
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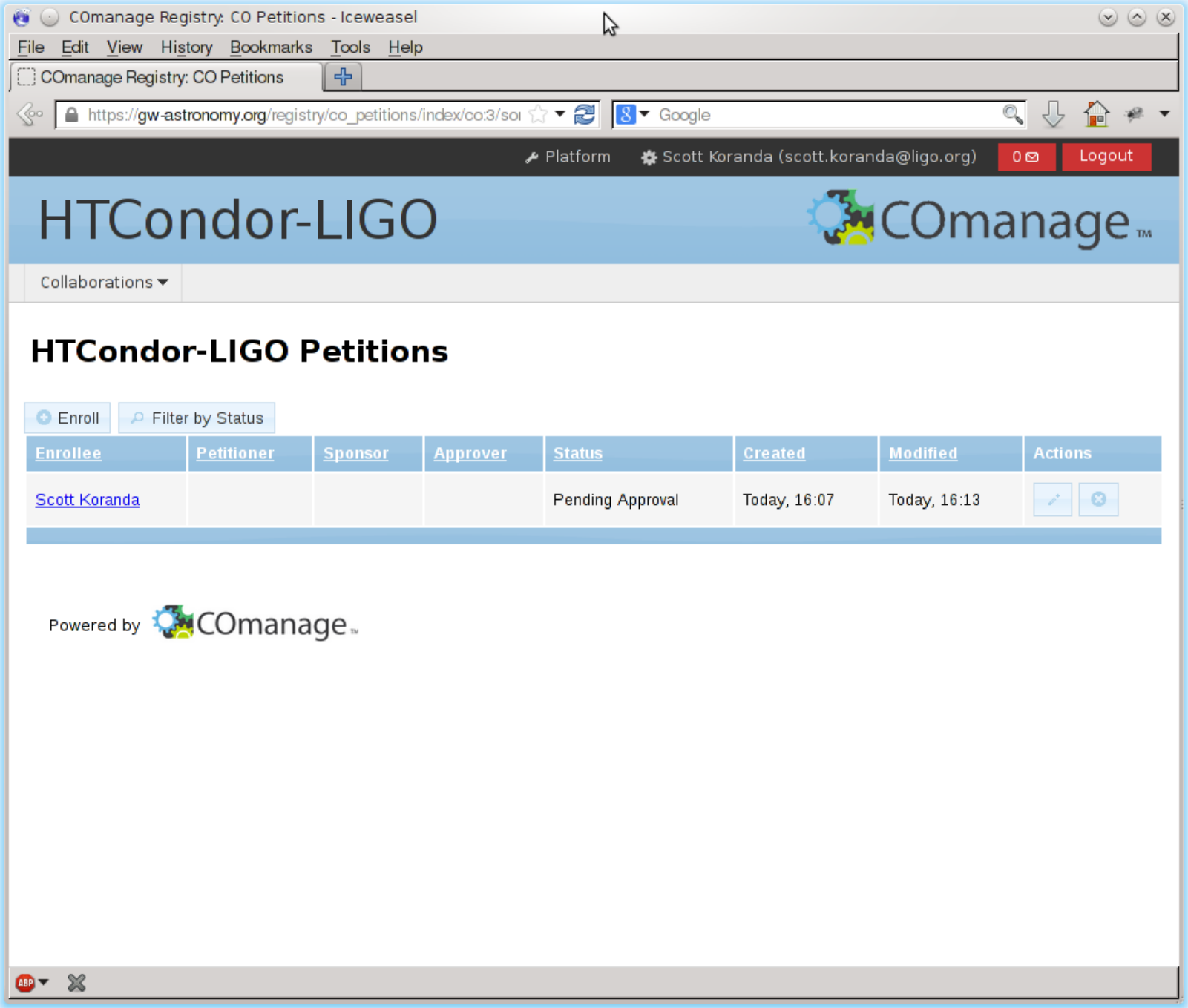
COmanage Registry
COmanage
Collaborations
Thank you for registering for the HTCondor-LIGO working group and confirming your registered email address.
Your registration must be reviewed and approved. This is a one-time process.
After your registration is approved you may login again and upload an SSH key for login access to some LIGO resources.
If you have any questions please email the LIGO Help Desk.
Powered by COmanage


COmanage Registry: CO Petitions - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: CO Petitions
https://gw-astronomy.org/registry/co_petitions/index/co:3/so
Google
Platform
Scott Koranda (scott.koranda@ligo.org)
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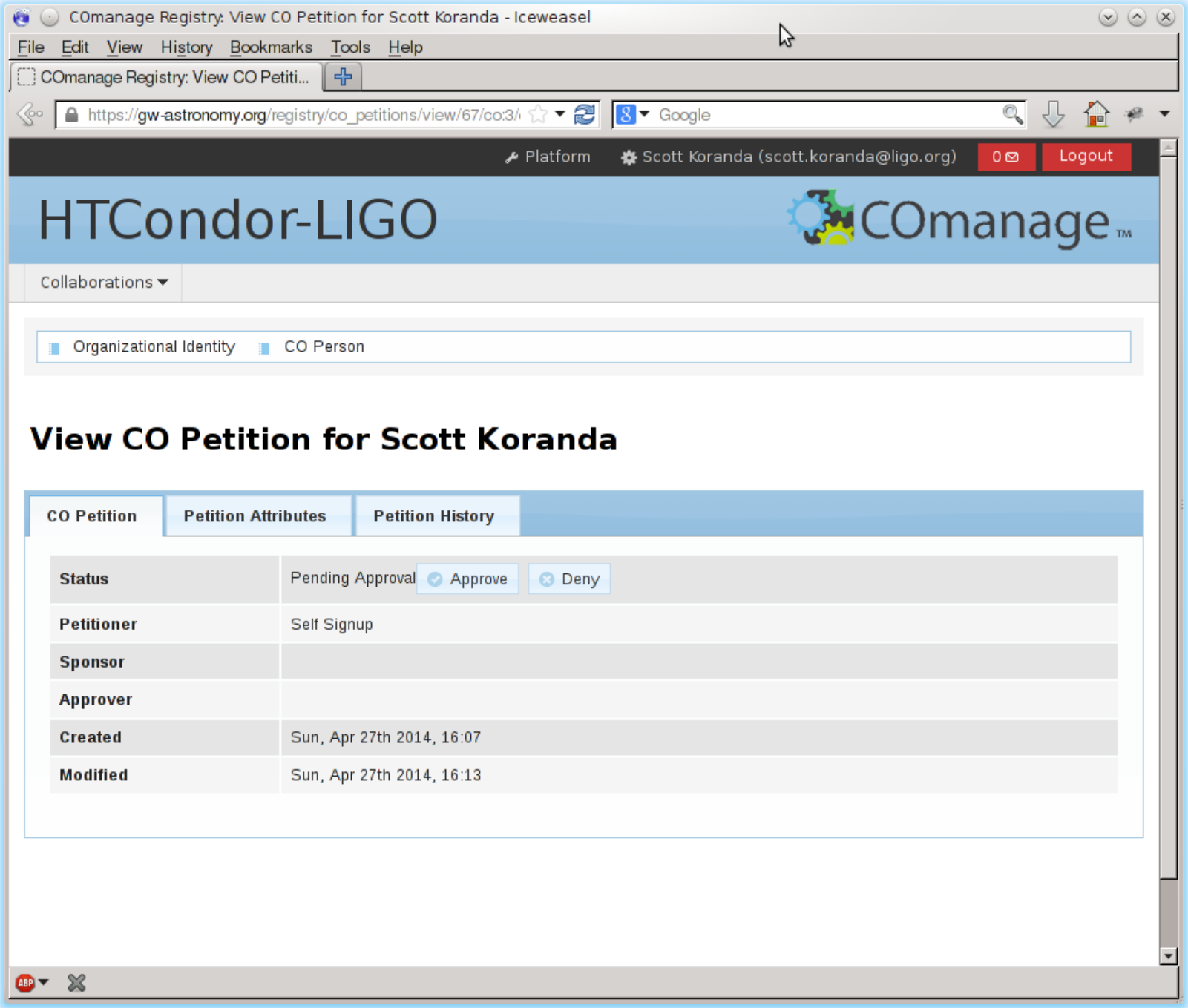
Logout
HTCondor-LIGO
COmanage
Collaborations
HTCondor-LIGO Petitions
Enroll
Filter by Status
Enrollee
Petitioner
Sponsor
Approver
Status
Created
Modified
Actions
Scott Koranda
Pending Approval
Today, 16:07
Today, 16:13
Powered by COmanage


COmanage Registry: View CO Petition for Scott Koranda - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: View CO Petiti...
https://gw-astronomy.org/registry/co_petitions/view/67/co:3/
Google
Platform
Scott Koranda (scott.koranda@ligo.org)
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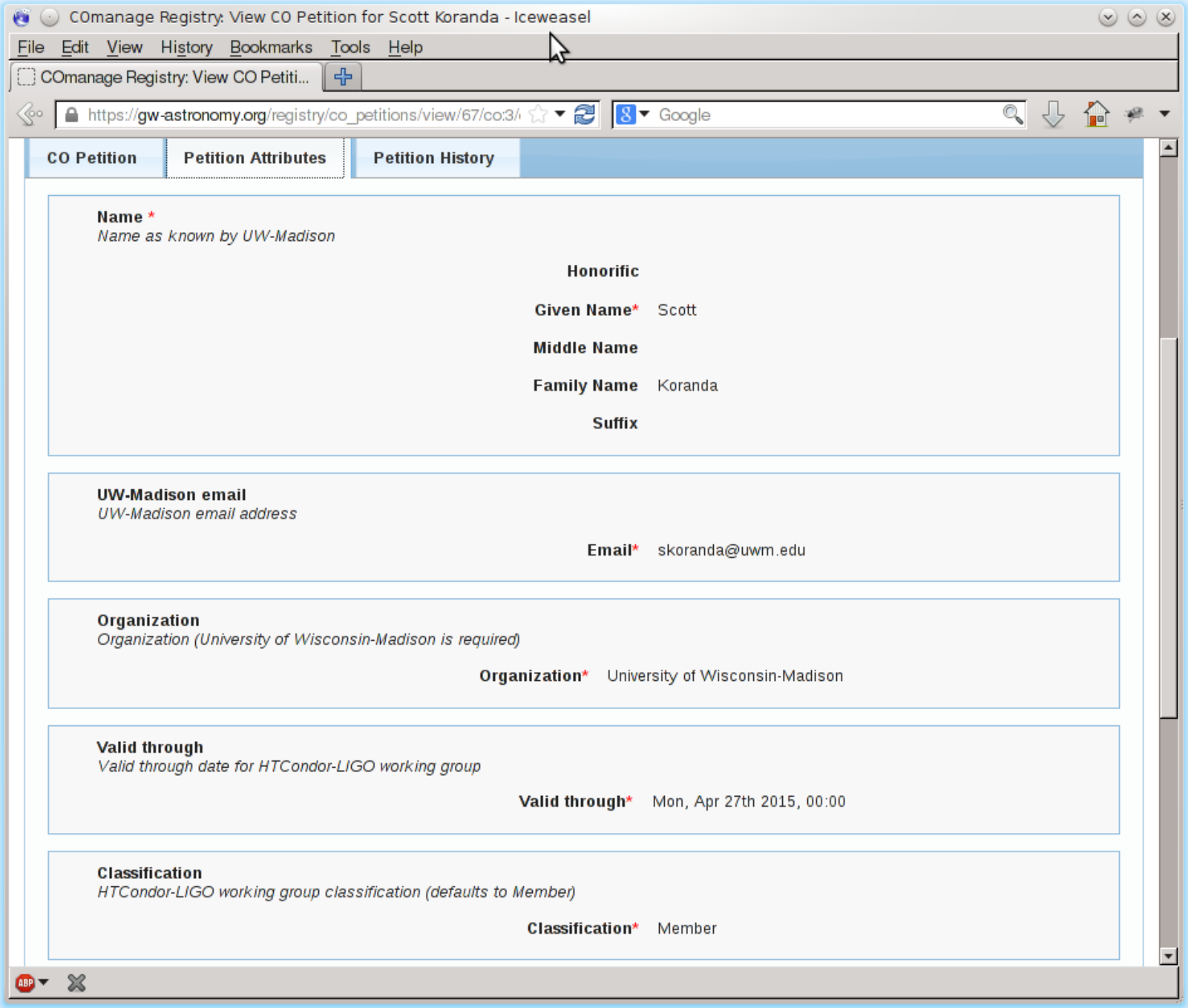
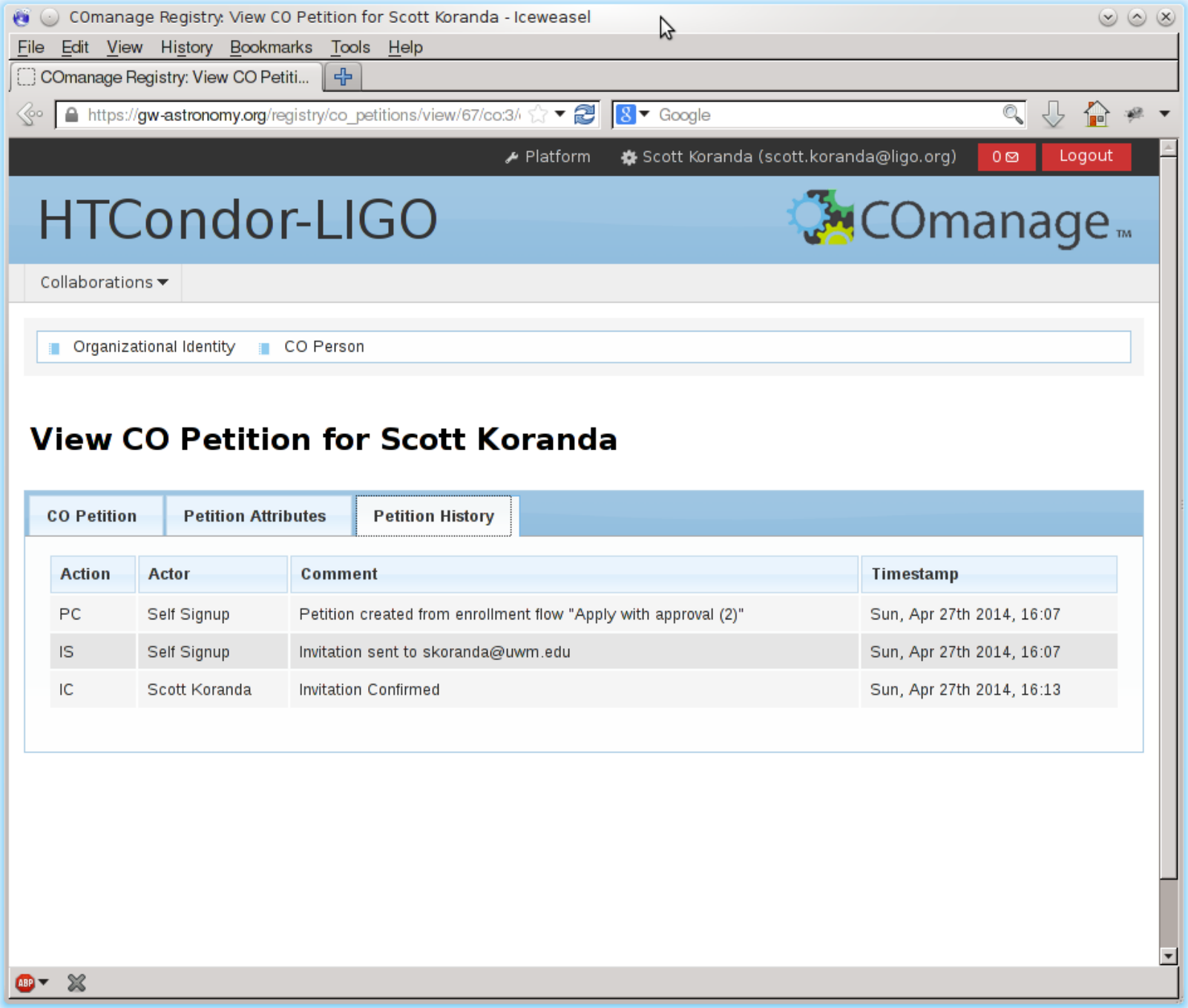
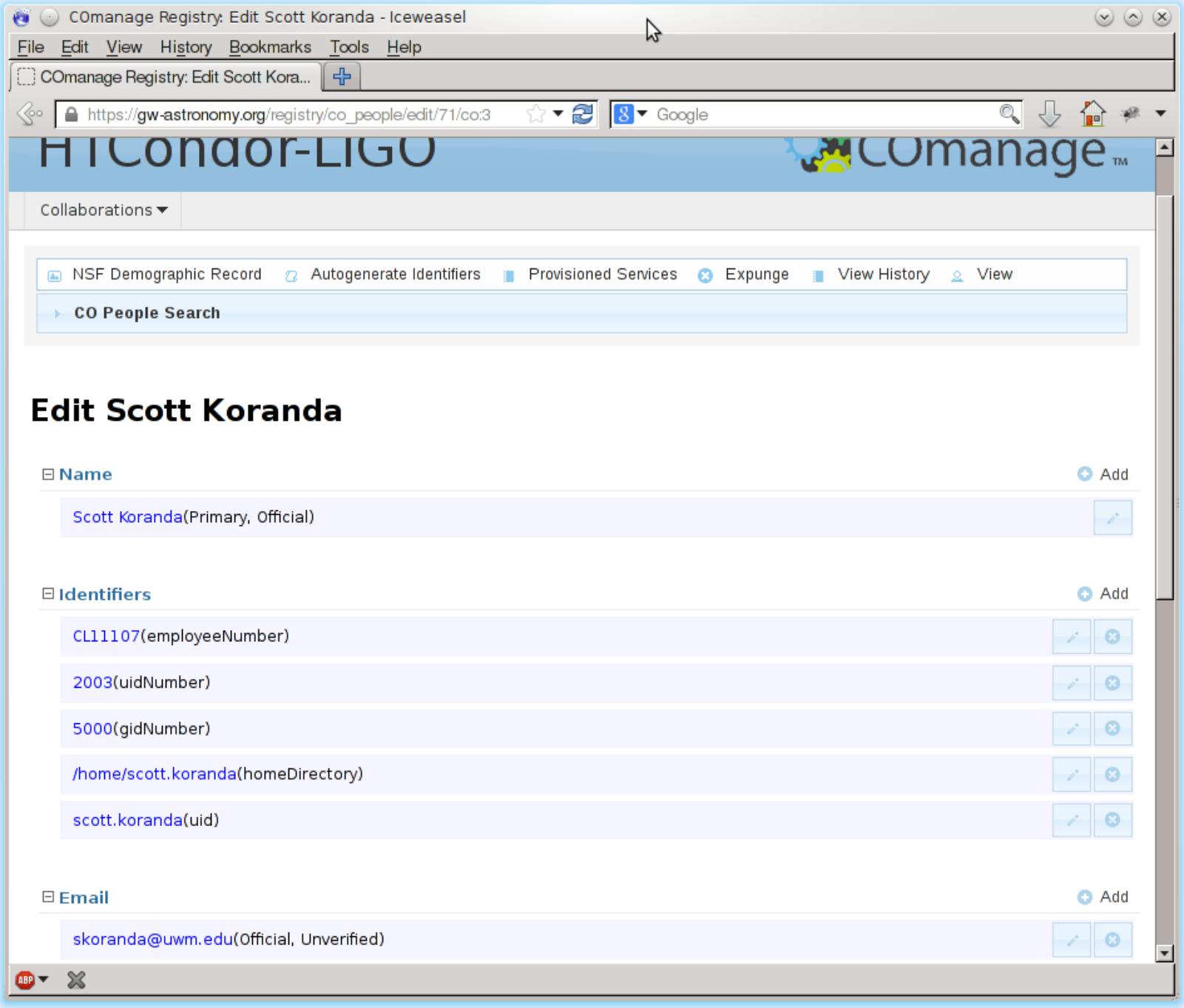
Logout
HTCondor-LIGO
COmanage
Collaborations
Organizational Identity
CO Person
View CO Petition for Scott Koranda
CO Petition
Petition Attributes
Petition History
Status
Pending Approval
Approve
Deny
Petitioner
Self Signup
Sponsor
Approver
Created
Sun, Apr 27th 2014, 16:07
Modified
Sun, Apr 27th 2014, 16:13


COmanage Registry: View CO Petition for Scott Koranda - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: View CO Petiti...
https://gw-astronomy.org/registry/co_petitions/view/67/co:3/
Google
CO Petition
Petition Attributes
Petition History
Name *
Name as known by UW-Madison
Honorific
Given Name* Scott
Middle Name
Family Name Koranda
Suffix
UW-Madison email
UW-Madison email address
Email* skoranda@uwm.edu
Organization
Organization (University of Wisconsin-Madison is required)
Organization* University of Wisconsin-Madison
Valid through
Valid through date for HTCondor-LIGO working group
Valid through* Mon, Apr 27th 2015, 00:00
Classification
HTCondor-LIGO working group classification (defaults to Member)
Classification* Member


COmanage Registry: View CO Petition for Scott Koranda - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: View CO Petiti...
https://gw-astronomy.org/registry/co_petitions/view/67/co:3/
Google
Platform
Scott Koranda (scott.koranda@ligo.org)
0
Logout
HTCondor-LIGO
COmanage
Collaborations
Organizational Identity
CO Person
View CO Petition for Scott Koranda
CO Petition
Petition Attributes
Petition History
Action
Actor
Comment
Timestamp
PC
Self Signup
Petition created from enrollment flow "Apply with approval (2)"
Sun, Apr 27th 2014, 16:07
IS
Self Signup
Invitation sent to skoranda@uwm.edu
Sun, Apr 27th 2014, 16:07
IC
Scott Koranda
Invitation Confirmed
Sun, Apr 27th 2014, 16:13


COmanage Registry: Edit Scott Koranda - Iceweasel
File Edit View History Bookmarks Tools Help
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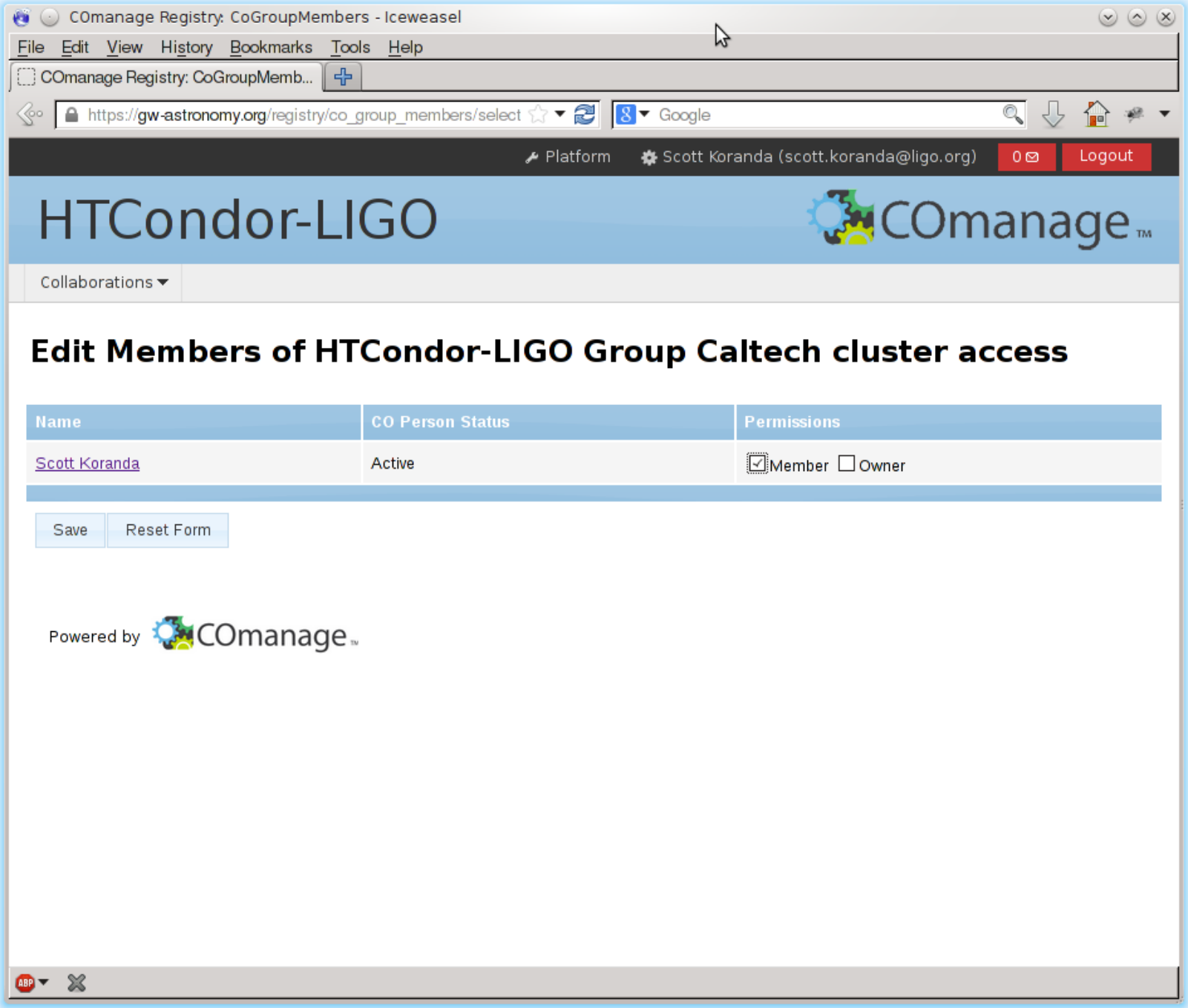
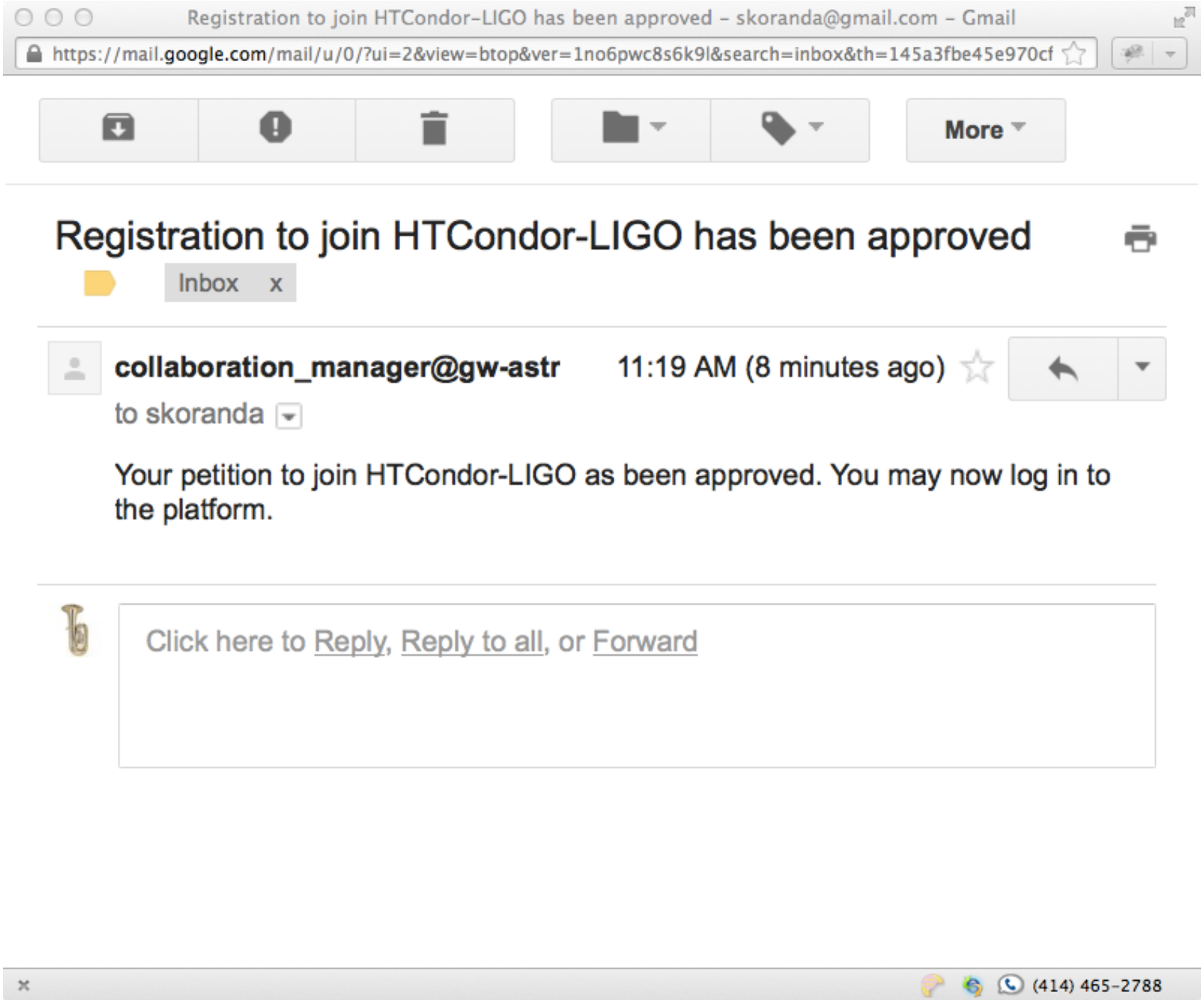
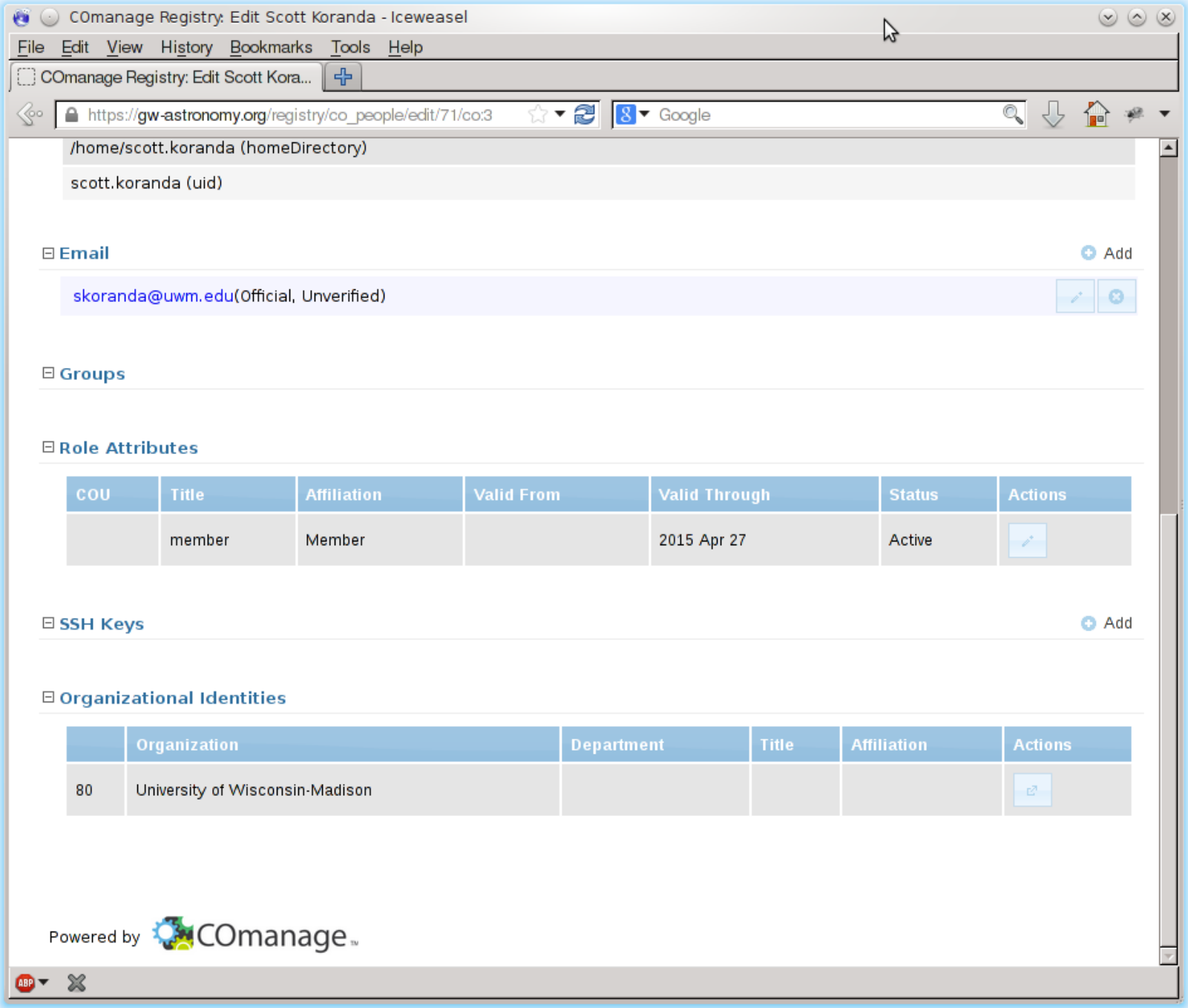
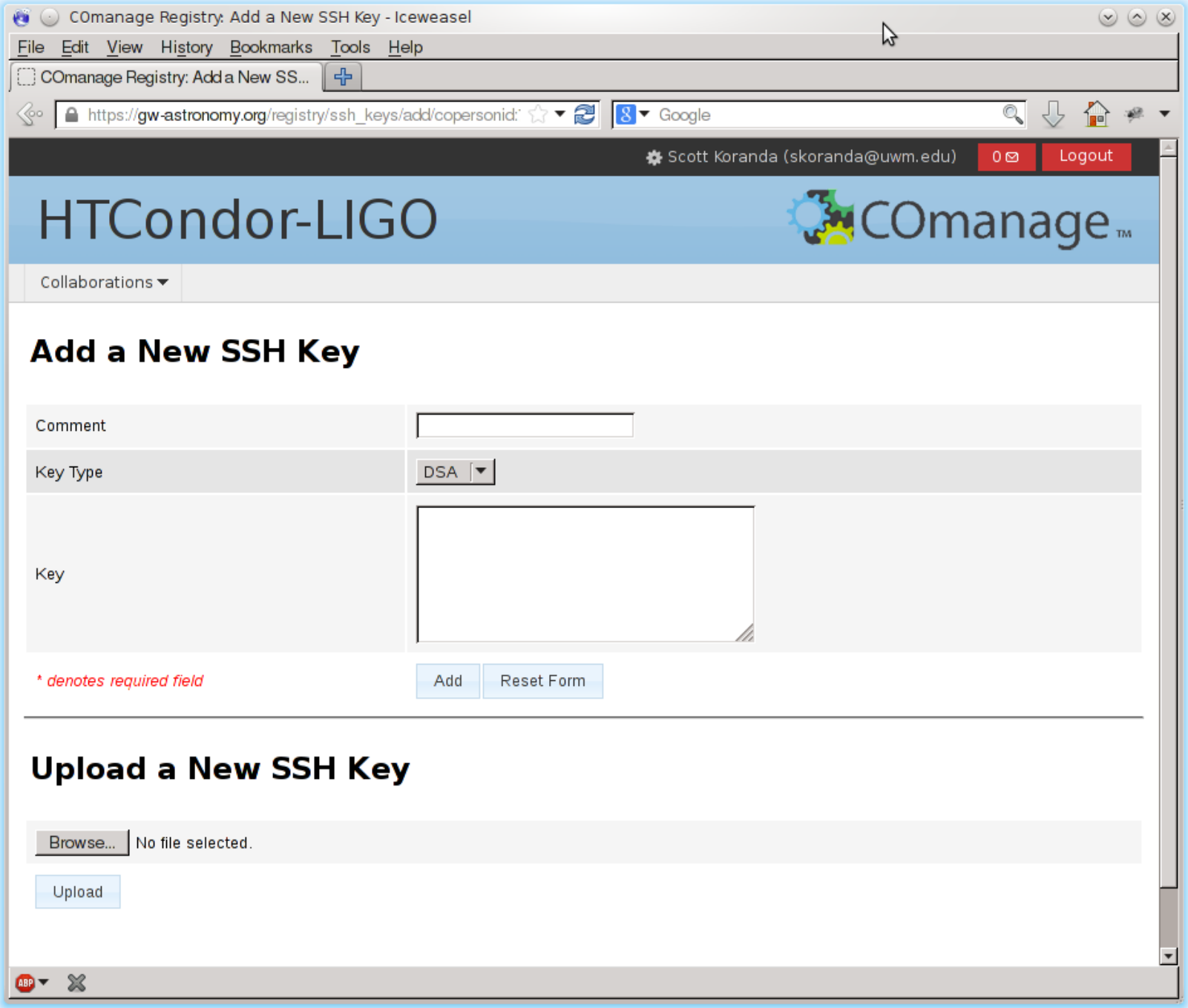
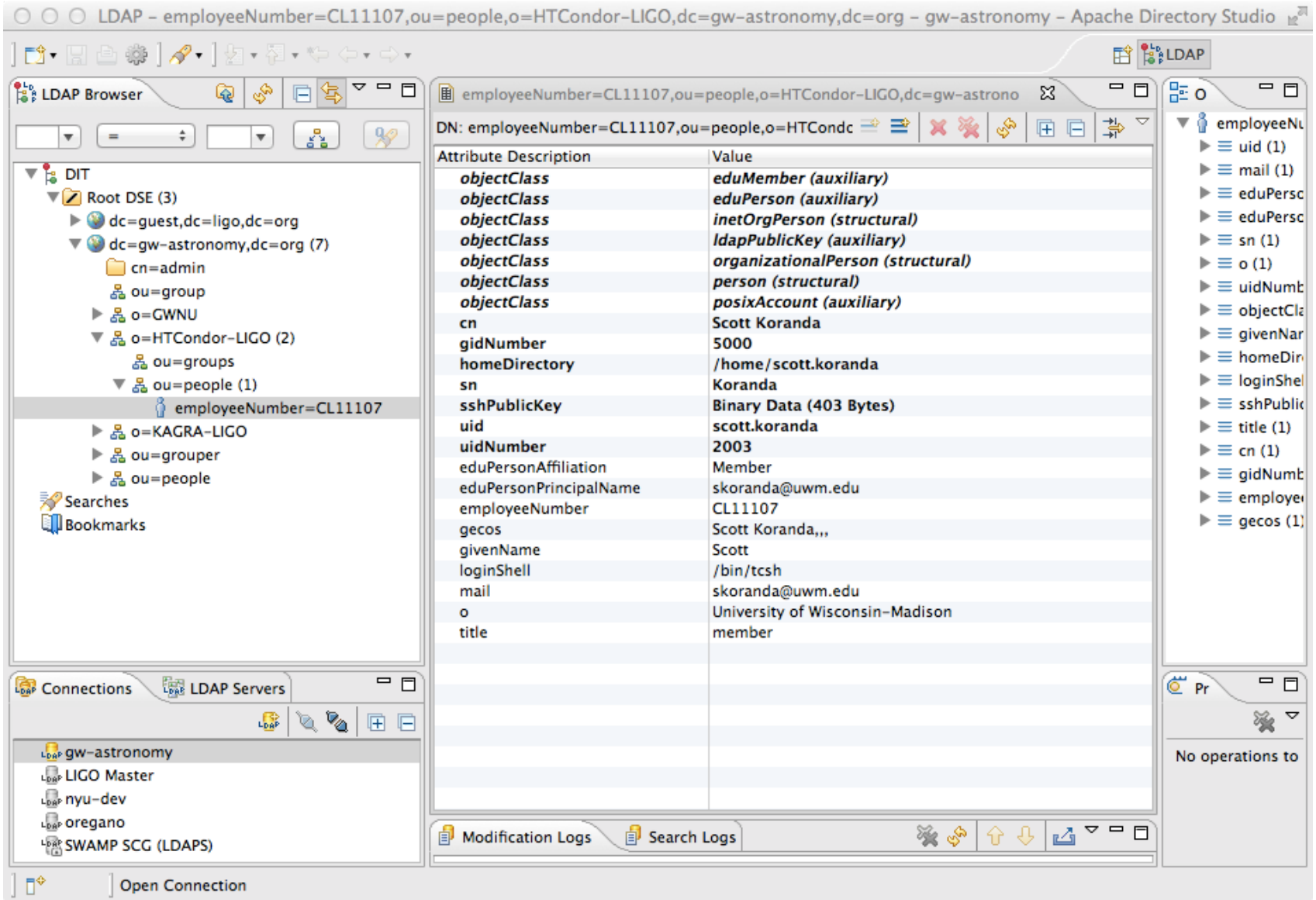
https://gw-astronomy.org/registry/co_people/edit/71/co:3
Google
HTCondor-LIGO
COmanage
Collaborations
NSF Demographic Record
Autogenerate Identifiers
Provisioned Services
Expunge
View History
View
CO People Search
Edit Scott Koranda
Name
Add
Scott Koranda(Primary, Official)
Identifiers
Add
CL11107(employeeNumber)
2003(uidNumber)
5000(gidNumber)
/home/scott.koranda(homeDirectory)
scott.koranda(uid)
Email
Add
skoranda@uwm.edu(Official, Unverified)

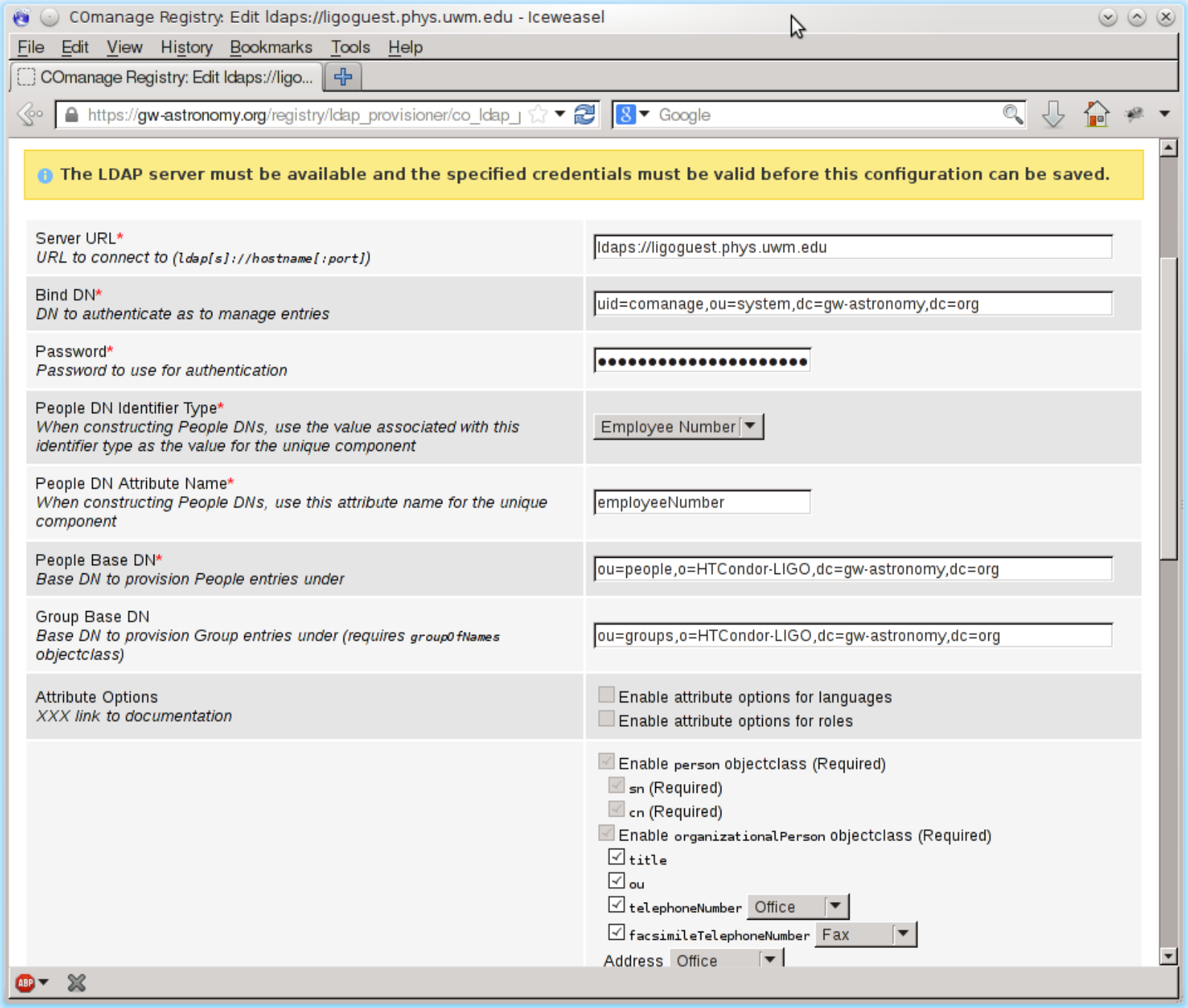

COmanage Registry: CoGroupMembers - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: CoGroupMemb...
https://gw-astronomy.org/registry/co_group_members/select
Google
Platform
Scott Koranda (scott.koranda@ligo.org)
0
Logout
HTCondor-LIGO
COmanage
Collaborations
Edit Members of HTCondor-LIGO Group Caltech cluster access
Name
CO Person Status
Permissions
Scott Koranda
Active
Member
Owner
Save
Reset Form
Powered by COmanage

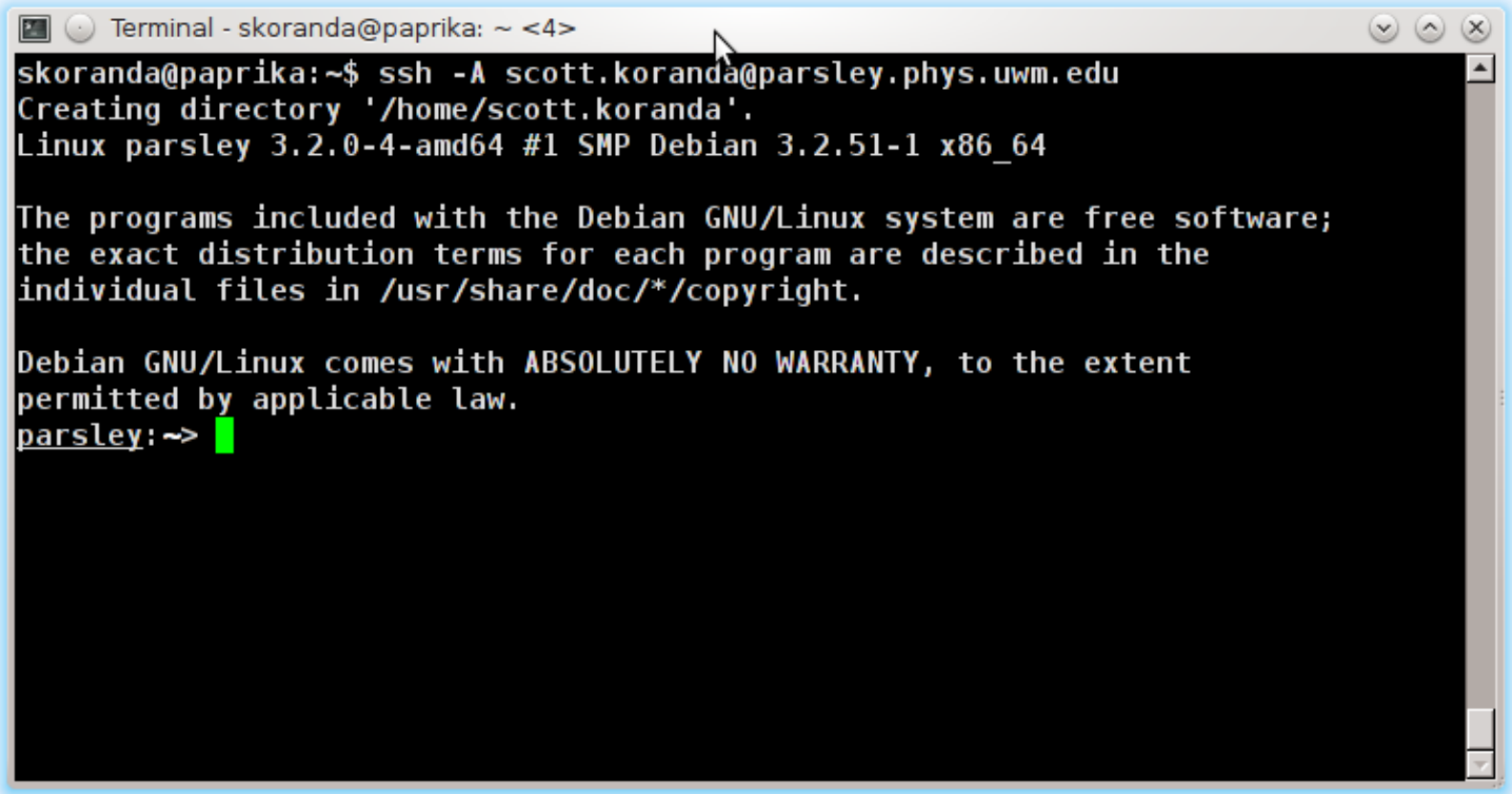

Registration to join HTCondor-LIGO has been approved - skoranda@gmail.com - Gmail
https://mail.google.com/mail/u/0/?ui=2&view=btop&ver=1no6pwc8s6k9l&search=inbox&th=145a3fbe45e970cf
More
Registration to join HTCondor-LIGO has been approved
Inbox x
collaboration_manager@gw-astr 11:19 AM (8 minutes ago)
to skoranda
Your petition to join HTCondor-LIGO as been approved. You may now log in to the platform.
Click here to Reply, Reply to all, or Forward
(414) 465-2788


COmanage Registry: Edit Scott Koranda - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Edit Scott Kora...
https://gw-astronomy.org/registry/co_people/edit/71/co:3
Google
/home/scott.koranda (homeDirectory)
scott.koranda (uid)
Email
Add
skoranda@uwm.edu(Official, Unverified)
Groups
Role Attributes
COU
Title
Affiliation
Valid From
Valid Through
Status
Actions
member
Member
2015 Apr 27
Active
SSH Keys
Add
Organizational Identities
Organization
Department
Title
Affiliation
Actions
80
University of Wisconsin-Madison
Powered by COmanage


COmanage Registry: Add a New SSH Key - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Add a New SS...
https://gw-astronomy.org/registry/ssh_keys/add/copersonid:
Google
Scott Koranda (skoranda@uwm.edu)
0
Logout
HTCondor-LIGO
COmanage
Collaborations
Add a New SSH Key
Comment
Key Type
DSA
Key
* denotes required field
Add
Reset Form
Upload a New SSH Key
Browse...
No file selected.
Upload


LDAP – employeeNumber=CL11107,ou=people,o=HTCondor-LIGO,dc=gw-astronomy,dc=org – gw-astronomy – Apache Directory Studio
LDAP
LDAP Browser
DIT
Root DSE (3)
dc=guest,dc=ligo,dc=org
dc=gw-astronomy,dc=org (7)
cn=admin
ou=group
o=GWNU
o=HTCondor-LIGO (2)
ou=groups
ou=people (1)
employeeNumber=CL11107
o=KAGRA-LIGO
ou=grouper
ou=people
Searches
Bookmarks
employeeNumber=CL11107,ou=people,o=HTCondor-LIGO,dc=gw-astrono
DN: employeeNumber=CL11107,ou=people,o=HTCondc
Attribute Description
Value
objectClass
eduMember (auxiliary)
objectClass
eduPerson (auxiliary)
objectClass
inetOrgPerson (structural)
objectClass
ldapPublicKey (auxiliary)
objectClass
organizationalPerson (structural)
objectClass
person (structural)
objectClass
posixAccount (auxiliary)
cn
Scott Koranda
gidNumber
5000
homeDirectory
/home/scott.koranda
sn
Koranda
sshPublicKey
Binary Data (403 Bytes)
uid
scott.koranda
uidNumber
2003
eduPersonAffiliation
Member
eduPersonPrincipalName
skoranda@uwm.edu
employeeNumber
CL11107
gecos
Scott Koranda,,,
givenName
Scott
loginShell
/bin/tcsh
mail
skoranda@uwm.edu
o
University of Wisconsin-Madison
title
member
Connections
LDAP Servers
gw-astronomy
LIGO Master
nyu-dev
oregano
SWAMP SCG (LDAPS)
Modification Logs
Search Logs
No operations to
Open Connection


COmanage Registry: Edit ldaps://ligoguest.phys.uwm.edu - Iceweasel
File Edit View History Bookmarks Tools Help
COmanage Registry: Edit ldaps://ligo...
https://gw-astronomy.org/registry/ldap_provisioner/co_ldap_
Google
The LDAP server must be available and the specified credentials must be valid before this configuration can be saved.
Server URL*
URL to connect to (ldap[s]://hostname[:port])
ldaps://ligoguest.phys.uwm.edu
Bind DN*
DN to authenticate as to manage entries
uid=comanage,ou=system,dc=gw-astronomy,dc=org
Password*
Password to use for authentication
People DN Identifier Type*
When constructing People DNs, use the value associated with this identifier type as the value for the unique component
Employee Number
People DN Attribute Name*
When constructing People DNs, use this attribute name for the unique component
employeeNumber
People Base DN*
Base DN to provision People entries under
ou=people,o=HTCondor-LIGO,dc=gw-astronomy,dc=org
Group Base DN
Base DN to provision Group entries under (requires groupOfNames objectclass)
ou=groups,o=HTCondor-LIGO,dc=gw-astronomy,dc=org
Attribute Options
XXX link to documentation
Enable attribute options for languages
Enable attribute options for roles
Enable person objectclass (Required)
sn (Required)
cn (Required)
Enable organizationalPerson objectclass (Required)
title
ou
telephoneNumber Office
facsimileTelephoneNumber Fax
Address Office


Terminal - skoranda@paprika: ~ <4>
skoranda@paprika:~$ ssh -A scott.koranda@parsley.phys.uwm.edu
Creating directory '/home/scott.koranda'.
Linux parsley 3.2.0-4-amd64 #1 SMP Debian 3.2.51-1 x86_64
The programs included with the Debian GNU/Linux system are free software;
the exact distribution terms for each program are described in the
individual files in /usr/share/doc/*/copyright.
Debian GNU/Linux comes with ABSOLUTELY NO WARRANTY, to the extent
permitted by applicable law.
parsley:~>

Questions for the community

- What enrollment flows do you need?
- What other identifiers (uid,gid,homeDirectory) do you need?
- How do you want to provision SSH keys?
- How do you want to provision home directories?
- How do you want to deprovision?
- Would HTCondor accounting group provisioning be interesting?

Status

- Release 0.8.5.
- Plan 1.0.0 release late summer, early fall.
- Extensible notification engine now in progress.
- Needs polishing and packaging.
- Best-effort community support.
- Paid design, deployment, and support available.
- LIGO is early adopter.
- Additionally, two hosted instances (including applications such as email lists and wikis) run by a vendor.

More information

https://spaces.internet2.edu/display/COmanage/Home

pubsympa@internet2.edu subject: subscribe comanage-community

The mission: get more researchers computing.

Make it simple.